

DEVELOPMENT OF MS ISO 9001:2008 MANAGEMENT SYSTEM FOR  
AUTOMOTIVE EXCELLENCE CENTER

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Report submitted in partial fulfilment of the requirements  
for the award of the degree of  
Bachelor of Mechanical Engineering

Faculty of Mechanical Engineering  
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**UNIVERSITI MALAYSIA PAHANG**  
**FACULTY OF MECHANICAL ENGINEERING**

We certify that the project entitled “*Development of MS ISO 9001:2008 Management System For Automotive Excellence Center*” is written by *Nurul Jannah Firdaus bt Ahmad Kamil*. We have examined the final copy of this project and in our opinion; it is fully adequate in terms of scope and quality for the award of the degree of Bachelor of Engineering. We herewith recommend that it be accepted in partial fulfillment of the requirements for the degree of Bachelor of Mechanical Engineering.

*(name of panel member)*

Examiner

Signature

**Dedicated to my parents, lecturers and friends**

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I hereby declare that I have checked this project and in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Mechanical Engineering.

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I hereby declare that the work in this project is my own except for quotations and summaries which have been duly acknowledged. The project has not been accepted for an degree and is not concurrently submitted for award of other degree.

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## **ABSTRACT**

The purpose of this thesis is to study the development of Quality Management System at Automotive Excellence Center due to the MS ISO 9001:2008 requirement. The objective of this thesis are: 1) to study and enhance the knowledge on implementation of MS ISO 9001:2008 in industry, 2) to analyses the requirement for implementation of a quality management system at the Automotive Excellence Center of Faculty of Mechanical Engineering and 3) to develop a quality manual and quality procedure based on the requirement of MS ISO 9001:2008. ISO is the International Organization of Standardization in which it is the world wide federation of national standard bodies (ISO member bodies). It promotes the adaption of the process approach when developing, implementing and improving the effectiveness of a quality management system. ISO 9001:2008 is the continuation of MS ISO 9001:2000 with some changes made in the clauses. There are eight section modeled on the sectional organization of the ISO 9001:2008 standard. Section are further divided into several subsections representing main quality system processes. Each subsection defines general policies and basic principles for the pertinent quality system process, summarizes responsibilities and methods and references relevant operational procedures and other documents. The purpose of the development of quality manual is to define and describe the quality system as well as to define the authorities and responsibilities of the management personnel involved in the operation of the system. Furthermore, it is to provide a general description of all processes comprising the quality system. Another purpose of the development of the quality manual is to present the quality system to customers, suppliers, regulators and other external interested parties, and to inform them what specific controls are implemented at Automotive Excellence Center to assure quality.

## **ABSTRAK**

Tujuan utama tesis ini adalah untuk mempelajari mengenai perkembangan Sistem Pengurusan Kualiti di Pusat Kecemerlangan Automotif mengikut keperluan MS ISO 9001:2008. Objektif bagi tesis ini adalah : 1) untuk mempelajari dan menambah pengetahuan mengenai pelaksanaan MS ISO 9001:2008 di dalam industry, 2) untuk menganalisis keperluan yang diperlukan bagi pelaksanaan sistem pengurusan kualiti di Pusat Kecemerlangan Automotif di Fakulti Kejuruteraan Mekanikal and 3) untuk menghasilkan Kualiti Manual dan Kualiti Prosedur berdasarkan keperluan MS ISO 9001:2008. ISO adalah Pemiawaian Organisasi Antarabangsa di mana ia merupakan Persekutuan Seluruh Dunia dari Badan Pemiawaian Kebangsaan. Ia menggalakkan pengadaptasian proses ketika pembangunan, pelaksanaan, dan kemajuan daripada keberkesanan sistem pengurusan kualiti. ISO 9001:2008 merupakan penyambungan daripada MS ISO 9001:2000 dengan beberapa perubahan yang telah dilakukan melalui klausa-klausa yang terdapat di dalam pemiawaian MS ISO 9001:2008. Terdapat lapan seksyen yang telah dibahagikan didalam pemiawaian MS ISO 9001:2008. Setiap seksyen pula dibahagikan kepada beberapa subseksyen yang mewakili proses utama di dalam sistem quality. Setiap seksyen mendefinisikan polisi am dan prinsip asas bagi proses sistem kualiti yang berkaitan, meringkaskantanggungjawab dan cara serta rujukan berhubung dengan prosedur operasi dan dokumen lain. Tujuan utama penghasilan quality manual adalah untuk mendefinisikan kuasa dan tanggungjawab sistem kualiti disamping mendefinisikan kuasa dan tanggungjawab pihak pengurusan yang terlibat di dalam operasi sistem ini. Tambahan pula, ia adalah untuk menyediakan penerangan am mengenai segala proses yang terkandung di dalam sistem kualiti. Tujuan lain bagi penghasilan kualiti manual ini adalah untuk diperkenalkan kepada pelanggan, pembekal, pengawal atur dan pihak lain yang berminat dan untuk mengumumkan kepada mereka mengenai penguasaan yang spesifik yang dilaksanakan di Pusat Kecemerlangan Automotif bagi menjamin kualiti.



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## **CHAPTER 1**

### **INTRODUCTION**

#### **INTRODUCTION**

This study discusses the implementation of ISO 9001:2008 in the development of the quality management system. The system will focus on a selected department in University Malaysia Pahang (UMP) which is the Center of Automotive Excellence.

ISO is the International Organization of Standardization in which it is the world wide federation of national standard bodies (ISO member bodies). The international standards promote the adaption of the process approach when developing, implementing and improving the effectiveness of a quality management system. For an organization to function effectively it has to identify and manage numerous linked activities using resources and managed in order to enable the transformation of inputs into output.

ISO 9001:2008 is the continuation of ISO 9001:2000 with some changes and improvement in the clauses. There are 8 clauses in ISO 9001 in which each of the clauses has different specifications. Section 1,2 and 3 of the standard are simply introduction text and do not impact the fulfillment of the requirement whereas section 4,5,6,6 and 8 contain

the requirement that must be applied if it is appropriate to the company scope of work and contractual relationship with the customer. In this study, the contain must be applied if it is appropriate with the scope work in Center of Automotive Excellence in FKM, the vision and mission, and the work policies.

### **Objective Research**

The objectives of the project are To study and enhance the knowledge on implementation of MS ISO 9001:2008 in industry, To study and analyses the requirement for implement a quality management system at the Center of Automotive Excellence Faculty of Mechanical Engineering and To develop quality manual and quality procedure based on the requirement of MS ISO 9001:2008

### **Scope Research**

This project is focused on developing the quality manual for MS ISO 9001:2008 certification at Center Automotive Excellence of FKM. The scopes are to study in quality management in method and development of quality manual and quality procedure of clause 4, clause 5, and clause 6 and also to collect data on clause 4, clause 5, and clause 6

### **Problem Statement**

ISO qualification is important in any organization to make sure the organization runs smoothly with the implementation of the ISO quality management system. Some of the benefits of the ISO are:

- Increasing of operation image in market
- Providing of different from rivals in market actions
- Operation from benefit of certificate which is available in international(demonstrating of quality for export

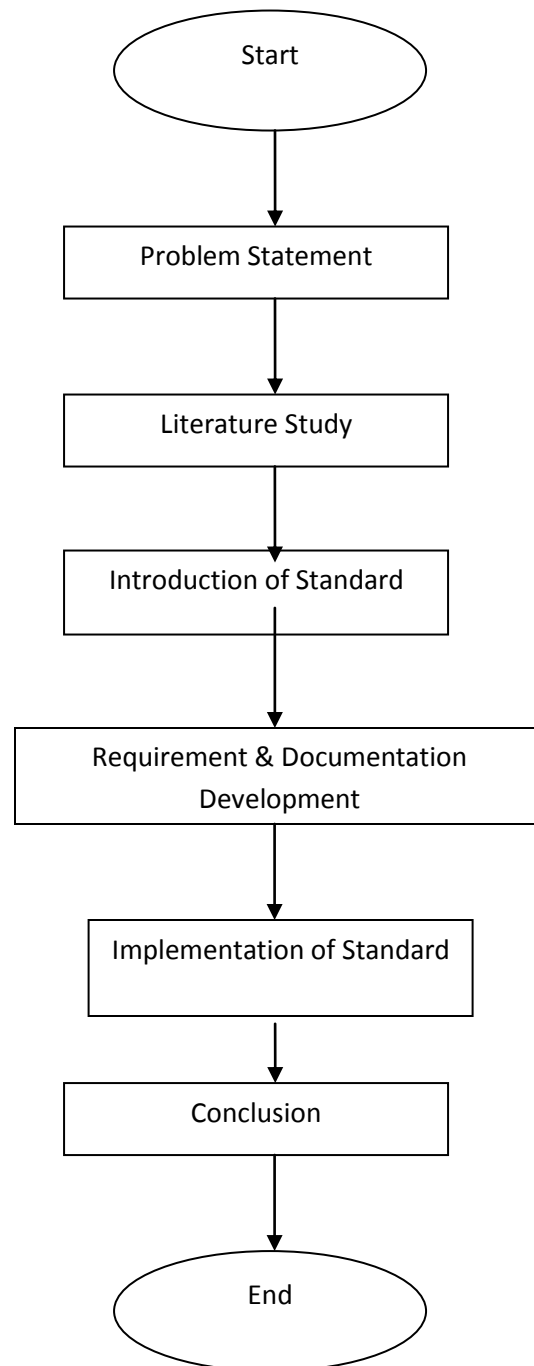
- Increasing of customer satisfaction and customer allegiance
- Decreasing of fault ratio, wastages, again operating
- Doing as effective of input, production and last control
- Providing easily supplier selection, evaluation and following
- Providing easily in determining and distribution and distribution of powers and responsibilities inside operation
- Occurring documentation(infrastructure) which makes standard of operation actions
- Occurring in infrastructure which keeps regularly records in the past
- Doing of situation analysis with data's and statically measurements and making decision for future with analysis results
- Steing important institutional way

Center Automotive Excellence of FKM, UMP is new department that created in UMP. As for that, this department need a proper management system to help this department to run smoothly and manageable. MS ISO 9001:2008 study is one of the methods to improve the quality management system in Center Automotive Excellence of FKM. Therefore, we are going to implement the MS ISO 9001:2008 principles and quality management system at Center of Automotive Excellence of FKM, UMP. It is important to understand management effort increase the effectively and efficiently of the management. Besides that, the educational achievement among student prior to UMP management system can be identify.

The qualification of MS ISO 9001:2008 need to be apply in this field to improve the standard concord to the principle of UMP as a world class university. ISO 9001 is suitable for any organization looking to improve the way it is operated and managed, regardless of size or sector. Moreover, for a management system to be effective the implementation must be consistent with practices and methods.

## **PROCESS FLOWCHART**

The Figure shows the separation of information or processes in a step-by-step flow and easy to understand diagrams showing how steps in a process fit together. This makes useful tools for communicating how processes work and for clarity due to time limitation how a particular job is done in Final Year Project 1.



**Figure 1.1: Progress Flowchart**

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 DEFINITION OF QUALITY**

Quality is the totality of features and characteristic that bears on the ability of a product to satisfy fitness for use, including safety and performance. A frequently used definition of quality is “delighting the customer by fully meeting their needs and expectation. These may include performance, appearance, availability, delivery, reliability, maintainability, cost effectiveness and price. It is, therefore, imperative that the organization knows these needs and expectation.

##### **2.1.1 QUALITY MANAGEMENT SYSTEM (QMS)**

Quality is the totality of features and characteristic that bear on the ability of a product to satisfy fitness for use, including safety and performance.

#### **QUALITY GURU’S**

Quality gurus are person that have a concept and approach to quality within business that has made a major and lasting impact. There have been three groups since the 1940’s:

Early 1950’s – American who took the message of quality to Japan





Late 1950's – Japanese who developed new concepts in response to the Americans



1970's -1980's – Western gurus who followed the Japanese industrial success.

## **2.2.1 The Americans who went to Japan**

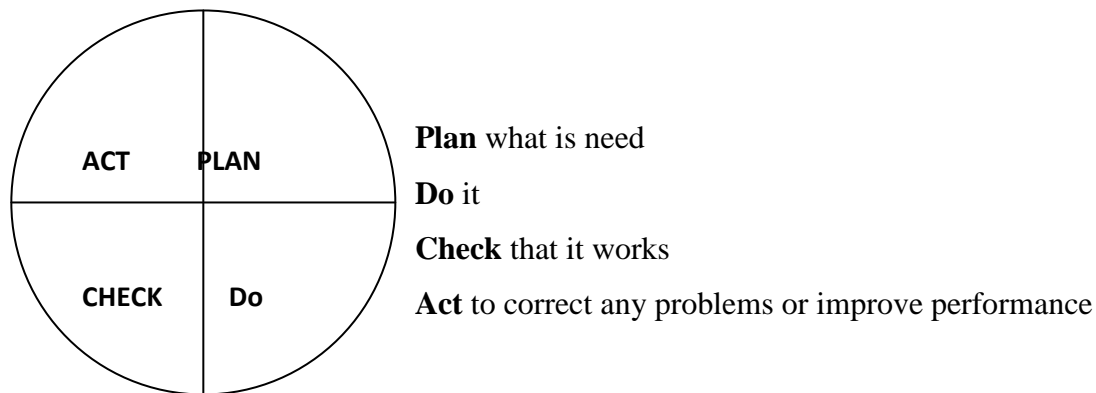
### **2.2.1.1 W EDWARD DEMING**

He believed that management to be responsible for 94% of quality problems. His fourteen point plan is a complete philosophy of management that can be applied to small or large organizations in the public, private or service sectors:

1. Create consistency of purpose towards improvement of product and service
2. Adopt the new philosophy. We can no longer live with commonly accepted levels of delay, mistakes and defective workmanship
3. Cease dependence on mass inspection. Instead, require statistical evidence that quality is built in
4. End the practice of awarding business on the basis of price
5. Find problems. It is management's job to work continually on the system
6. Institute modern methods for training on the job
7. Institute modern methods of supervision of production workers, the responsibility foremen must be changed from numbers to quality
8. Drive out fear, so that everyone may work effectively for the company  
break down barriers between departments
9. Eliminate numerical goals, posters and slogans for the workforce asking for new levels of productivity without providing methods
10. Eliminate work standards that prescribe numerical quotas
11. Remove barriers that stand between the hourly worker and their right to pride of workmanship
12. Institute a vigorous programmed of education and retraining

13. Create a structure in top management that will push on the above points everyday

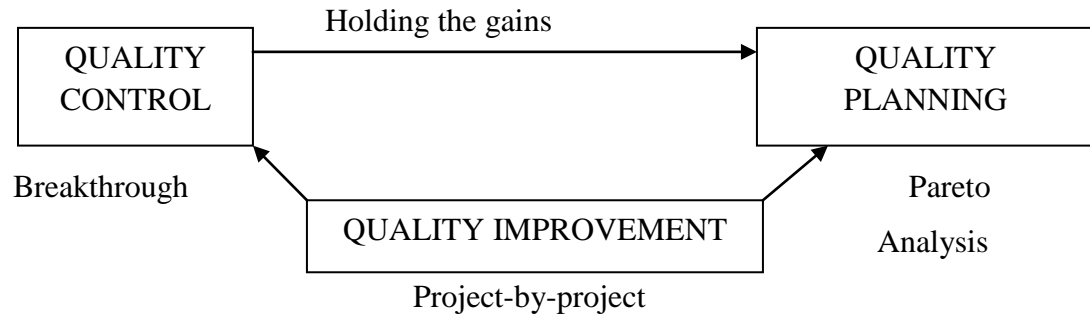
Deming also encouraged a systematic approach to problem solving and promoted the widely known Plan, Do, Check, Act (PDCA) cycle in which it also known as Deming cycle. It is a universal improvement methodology, the idea being constantly improve, and thereby reduce the difference between the requirements of the customers and the performance of the process. The cycle is about learning an ongoing improvement, learning what works and what does not in a systematic way; and the cycle repeats; after on cycle complete, another is started.



**Figure 2.1:** PDCA Cycle Diagram

#### **2.2.1.2 DR JOSEPH M JURAN**

He developed the quality trilogy – quality planning, quality control, and quality improvement. Good quality management requires quality actions to be planned out, improved and controlled. The process achieves control at one level of quality performance, then plans are made to improve the performance on a project by project basis, using tools and techniques such as Pareto analysis.



**Figure 2.2:** Pareto Analysis Diagram

Juran believed quality is associated with customer satisfaction and dissatisfaction with the product, and emphasized the necessity for ongoing quality improvement through a succession of small improvement projects carried out throughout the organisation. His ten step quality improvements:

- Build awareness of the need and opportunity for improvement
- Set goals for improvement
- Organize to reach the goals
- Provide training
- Carry out projects to solve problems
- Report progress
- Give recognition
- Communication results
- Keep score of improvements achieved
- Maintain momentum

### **2.2.1.3 ARMAND V FEIGENBAUM**

He was the originator of ‘total quality control’, often referred to as total quality. He defined it as “an effective system for integrating quality development, quality maintenance and quality improvement efforts of the various group within an organization, so as to enable production and service at the most economical levels that allow full customer satisfaction”.

His three steps to quality:

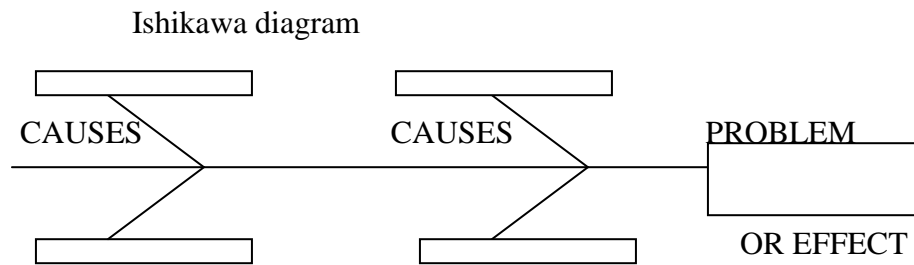
- Quality leadership
- Modern quality technology
- Organizational commitment

## **2.2.2 The Japanese**

### **2.2.2.1 DR KAORU ISHIKAWA**

His “seven basic tools of quality”:

- Pareto analysis
- Cause and effect diagrams
- Stratification
- Check sheets
- Histograms
- Scatter charts
- Process control charts



**Figure 2.3:** Cause and Effect Diagram

The diagram systematically represents and analyses the real causes behind a problem or effect. It organizes the major and minor contributing causes leading to one effect(or problem),defines the problem, identifies the possible and probable causes by narrowing down the possible ones.

#### **2.2.2.2 DR GENICHI TAGUCHI**

He believed it is preferable to design product that is robust or insensitive to variation in the manufacturing process, rather than attempt control all the many variations during actual manufacture. Quality and reliability are pushed back to the design stage where they really belong, and he broke down off-line into three stages:

- System design
- Parameter design
- Tolerance design

“Taguchi methodology” is fundamentally a prototyping method that enables the designer to identify the optimal setting to produce a robust product that can survive manufacturing time after time, piece after piece, and provide what customer wants.

### **2.2.2.3 SHIGEO SHINGO**

He was the inventor of the single minute exchange of die (SMED) system, in which set up times are reduced from hours to minute, and the Poka-Yoke (mistake proofing) system. In Poka-Yoke, defects are examined, the production system stopped and immediate feedback given so that the root causes of the problem may be identified and prevented from occurring again. He distinguished between “errors”, which are inevitable , and “defects”, which result when an error reaches a customer, and the aim of Poka-Yoke is to stop errors becoming defect.

### **2.2.3 WESTERN GURUS:**

#### **2.2.3.1 PHILIP B CROSBY**

He is known for the concepts of “Quality is Free” and “Zero Defects” and his quality improvement process is based on his 4 absolute of quality:

- Quality is conformance to requirements
- The system of quality is prevention
- The performance standard is zero defect
- The measurement of quality is the price of non – conformance

His fourteen steps to quality improvement are:

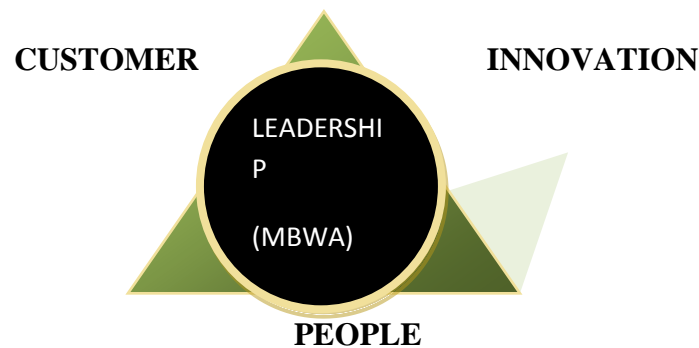
- Management is committed to a formalized quality policy
- Form a management level quality improvement team (QTI) with responsibility for quality improvement process planning and administration
- Determine where current and potential quality problems lie

- Evaluate the cost of quality and explain its use as a management tool to measure waste
- Raise quality awareness and personal concern for quality amongst all employees
- Take corrective actions, using established formal systems to remove the root causes of problems
- Establish a zero defects committee and programme
- Train all employees in quality improvement
- Hold a Zero Defects Day to broadcast the change and as a management recommitment and employee commitment
- Encourage individuals and groups to set improvement goals
- Encourage employees to communicate to management any obstacles they face in attaining their improvement goals
- Give formal recognition to all participants
- Establish quality councils for quality management information sharing
- Do it all over again – form a new quality improvement team

#### **2.2.3.2 TOM PETERS**

He identified leadership as being as being central to the quality improvement process, discarding the word “Management” for “Leadership”. He believes that, as the effective leader walks, at least 3 major activities are happening:

- Listening – suggest caring
- Teaching – values are transmitted
- Facilitating – able to give on-the-spot help



**Figure 2.4:** Managing By Walking Diagram ([www.dti.gov.uk/quality/gurus](http://www.dti.gov.uk/quality/gurus))

## **2.3 QUALITY MANAGEMENT MODELS**

### **2.3.1 BALDRIGE EDUCATION CRITERIA FOR PERFORMANCE EXCELLENCE**

Provide a systems perspective for understanding performance management. They reflect validated, leading-edge management practices against which an organization can measure itself. With their acceptance nationally and internationally as the model for performance excellence, the Criteria represent a common language for communication among organizations for sharing best practices. The Criteria are also the basis for the Malcolm Baldrige National Award process

The Malcolm Criteria for Performance Excellence are the basis for organizational self-assessments, for making Awards, and for giving feedback to applicants. In addition, the Criteria have three important roles in strengthening US competitiveness:



- To help improve performance practices and capabilities
- To facilitate communication and sharing of the best practices information among US organizations of all types
- To serve as a working tool for understanding and managing performance, planning and training.

The Criteria are designed to help organizations enhance their competitiveness through focus on dual, results-oriented goals which are delivery of ever-improving value to customers, resulting in marketplace success and improvement of overall organizational performance and capabilities. The cores and concepts of the Criteria are:

1. Customer – Driven Quality
2. Continuous Improvement and Learning
3. Valuing Employees
4. Fast Response
5. Design Quality and Prevention
6. Long-Range View of the Future
7. Partnership Development
8. Public Responsibility and Citizenship
9. Result Focus

The Baldrige criteria for Performance Excellence provide a system perspective for understanding performance management. The Baldrige criteria form an excellent model of Total Quality Management (TQM). The criteria of framework are divided in seven key categories:

1. Leadership
2. Strategic Planning

3. Customer and Market Focus
4. Information and Analysis
5. Human Resource Focus
6. Process Management
7. Business Results



**Figure 2.5 :** Total Quality Management Framework ([www.baldrige.com](http://www.baldrige.com), 1999)

### 2.3.2 DEMING APPLICATION PRIZE

The Deming prize, established in December 1950 in honor of W. Edwards Deming, was originally designed to reward Japanese companies for major advances in quality improvement. Over the years it has grown, under the guidance of Japanese Union of Scientists and Engineers (JUSE) to where it is now also available to non-Japanese companies, albeit usually operating in Japan, and also to individuals recognized as having

made major contributions to the advancement of quality. The awards ceremony is broadcast every year in Japan on national television.

The purpose of the Deming Prize was to recognize those who excelled in quality control and as a way of driving quality control. It was also established to thank Dr. Deming for his accomplishments and impact in the Japanese industry.

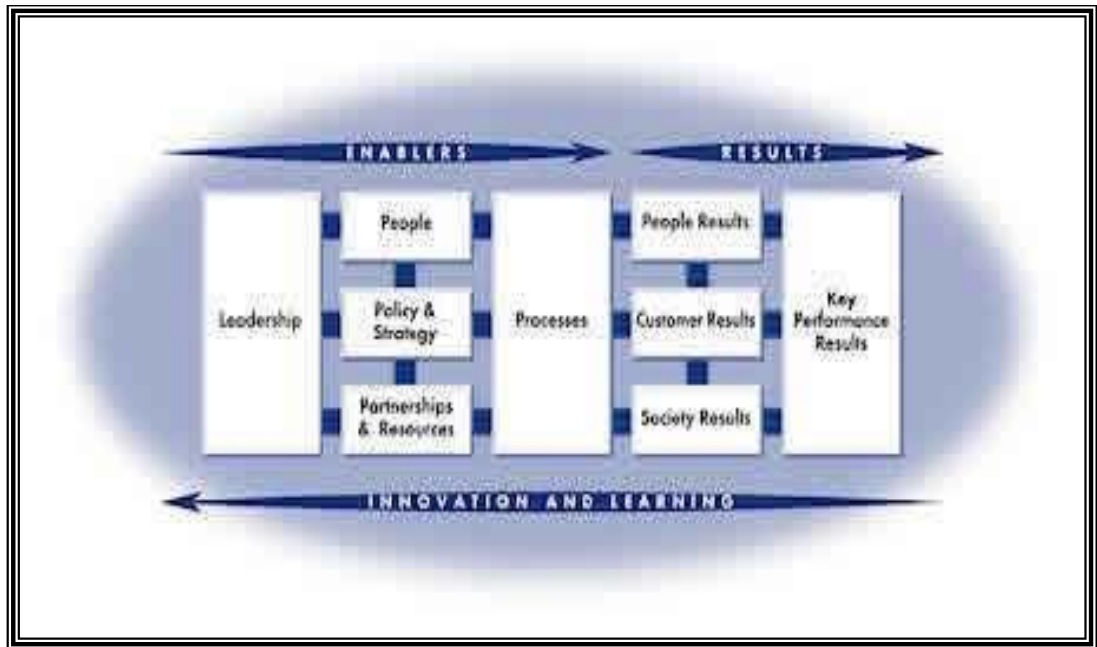
The Deming Prize concentrates on :

1. Policy – what the purpose and mission of the organization: short and long term. Maintain consistency and follow through
2. Organization and Operations – how smoothly an organization controls communication, effective use of employees, and clear authority
3. Collection and use of information – information flow, processing, and documentation
4. Analysis – being able to find problems within and how to correct such problems and documentation
5. Planning for the future – long term plans of improvement that were looked over carefully and planned for the current situations of the firm
6. Education and training – looks at an organization's way of dealing with the training of employees. What plans are made and how it is implemented
7. Quality assurance – how products and services are designed. How is the quality of the good service and the safety. Will consumer be content?
8. Quality effects – documentation of how the plans for the quality improvement have affected the firm
9. Standardization – setting standard and how standards are controlled and monitored.
10. Control - How they use quality control, what they use, and level of control at the firm

### **2.3.3 EUROPEAN FOUNDATION FOR QUALITY MANAGEMENT**

Developed by the European Foundation for Quality Management (EFQM) the Excellence model is a management model for excellence which can be applied to any organization to evaluate qualitatively its performance. It enables private, public and voluntary sector organizations to compare their performance and provides a method for measuring improvements in performance over time. It is an internationally recognized model which has been used by many organizations to drive improvements since 1991.

The model is remarkably simple and takes a logical and systematic look at an organization to identify areas of strength and areas requiring further improvement. By using the model an organization can be confident it is targeting its energy into improving the most important areas. The model looks at 5 themes as “enablers” which examine what the organization is doing. These themes are Leadership, Policy & Strategy, People, Partnership & Resource and Processes. Then there are further four themes for the result the organization is achieving which are Customer Result, People Results, Society Result and Key Performance Results.



**Figure 2.6 :** European Foundation for Quality Management (EFQM) the Excellence model

([www.grc.cf.ac.uk](http://www.grc.cf.ac.uk), 1999)

The model can be use in four ways:

1. As a framework which organizations can use to help them develop their vision and goals for the future in a tangible, measureable way.
2. As a framework which organizations can use to help them identify and understand the systematic nature of their business, the key linkage and cause and effect relationship.
3. As the basis for the EFQM Excellence Award, a process which allows Europe to recognize its most successful organizations and promote them as role models of excellence for others to learn for
4. As a diagnostic tool for assessing the current health of the organization. Through this process an organization is better able to balance its priorities, allocate resources and generate realistic business plans

### **2.3.4 ISO**

ISO is a network of the national standard institutes of 148 countries, on the basis of one member per country, with a Central Secretariat in Geneva, Switzerland, that coordinates the system. ISO is a non-governmental organization: its member is not, as is the case in the United Nations system, delegations of national government. Nevertheless, ISO occupies a special position between the public and private sectors.

Therefore, ISO is able to act as a bridging organization in which a consensus can be reached on solution that meet both the requirements of business and the broader needs of the society, such as the needs of stockholder groups like consumers and users.

#### **2.3.4.1 ISO 9000**

ISO 9000 is a family of standards for quality management. ISO 9000 is maintained by ISO, the International Organization for Standardization and is administered by accreditation and certification bodies. The ISO 9000 family is primarily concerned with “quality management”. This means what the organization does to fulfil the customer’s quality requirement, applicable regulatory requirements, while aiming to enhance customer satisfaction and achieve continual improvement of its performance in pursuit of theses objectives. ISO 9000 includes standards :

1. ISO 9000 : 2005, Quality management systems – Fundamentals and vocabulary

- Covers the basics of what quality management systems are and also contains the core language of the ISO 9000 series of standards. A guidance document, not used for certification purpose, but important reference document to understand terms and vocabulary related to quality management systems.

## 2. ISO 9001 : 2008, Quality management systems – Requirements

- Intended for use in any organization which design, develops, manufactures, installs and/or services any product or provides any form of service. It provides a number of requirements which an organization needs to fulfill if it is to achieve customer satisfaction through consistent products and services which meet customer requirements which an organization needs to fulfill if it is to achieve customer satisfaction through consistent products and services which meet customer expectations. It includes a requirement for the continual improvement of the Quality Management System, for which ISO 9004:2000 provides many hints

## 3. ISO 9004 : 2000, Quality Management Systems – Guidelines for performance improvements

- Covers continual improvement. This gives you advice on what you could do to enhance a mature system. This standard very specifically states that it is not intended as a guide to implementation

### 2.3.5 TQM

Total Quality Management (TQM) is a business management strategy aimed at embedding awareness of quality in all organizational processes. TQM has been widely used

in manufacturing, education, call centers, government and service industries as well as NASA space and science programs. TQM as defined by ISO is a management approach of an organization created on quality, based on participation of all its members and aiming at long-term success through customer satisfaction and benefits to all members of the organization and to society.

TQM comprises four steps that are :

1. Kaizen – focuses on “Continuous Process Improvement”, to make processes visible, repeatable and measureable.
2. Atarimae Hinshitsu – the idea that “ things will work as they are supposed to”
3. Kansei – examining the way the user applies the product leads to improvement in the product itself
4. Miryokuteki Hinshitsu – the idea “ things should have an aesthetic quality”

There eight key element that needs to be concentrate by any organizations to successfully implementing TQM and these elements can be divided into four groups which are :

## 1. Foundation – Ethics, Integrity and Trust

### i. Ethics

The discipline concerned with good and bad in any situation. It is a two-



faceted subject represented by organization and individual ethics.

Organizational ethics establish a business code of that outlines guidelines that all employees are to adhere to in the performance of their work.

Individual ethics include personal rights or wrongs.

ii. Integrity

Implies honesty, morals values, fairness and adherence to the facts and sincerity. The characteristic is what customers (internal or external) expect and deserve to receive

iii. Trust

Is a by-product of integrity and ethical conduct, It allows empowerment that encourage pride ownership and its courage commitment, allows decisions making at appropriate levels in the organization, fosters individual risk-taking for continuous improvement and helps to ensure that measurement focus on improvement of process and are not used to contend people. Trust essential to ensure customer satisfaction

## 2. Building bricks – Training, Teamwork, and Leadership

### i. Training

Training that employees require are interpersonal skills, the ability to function within teams, problems solving, decision making, job management performance analysis and improvement, business economics and technical skills. During the creation and formation of TQM, employees are trained so that they can become effective employees for the company

### ii. Teamwork

It helps the business to receive quicker and better solution to problems. Team provide more permanent improvements in processes and operation. There are mainly three types of teams that TQM organizations adopt :

- a. Quality Improvement Teams or Excellence Team (QITS) – these are temporary teams with the purpose of dealing with specific problems that often reoccur. These teams are set up for period of three to twelve months.
- b. Problem Solving Teams (PSTs) – to solve certain problems and also identify and overcomes causes of problems. They generally last for one week to three month

- c. Natural Work Teams (NWTs) – consist of small groups of skilled workers who share tasks and responsibilities. These teams use concepts such as employee involvement teams, self-managing teams and quality circles. These teams generally work for one to two hours a week.

- iii. Leadership

Requires the manager to provide an inspiring vision, make strategic directions that are understood by all and to instill values that guide subordinates. The supervisor makes sure that strategies, philosophies, values and goals are transmitted down through out the organization to provide focus, clarity and direction.

## 2. Binding Mortar – Communication

Communication means a common understanding of ideas between the sender and the receiver. For communication to be credible the message must be clear and receiver interpret in the way the sender intended. There are different ways of communication such as:

- a. Downward communication – the dominant form of the communication in an

organization. Presentation and discussion basically do it. By this the supervisors are able to make the employees clear about TQM

- b. Upward communication – by this the lower level of employees are able to provide suggestions to upper management of the affects of TQM. This forms a level of trust between supervisors and employees in which it empowering communication, where supervisors keep open ears and listen to others
- c. Sideways communication – it breaks down barriers between departments. It also allows dealing with customers and suppliers in a more professional manner.

### 3. Roof – Recognition

It should be provide for both suggestions and achievements for teams as well as individuals. Employees strive to receive recognition for themselves and their teams.

## **2.4 ISO 9001:2008**

ISO 9001 is a quality management standard. It applies to all types of organizations. ISO 9001 is maintained by ISO, the International Organization for Standardization and is administered by accreditation and certification bodies. There are some requirements in ISO 9001 in which include:

- a set of procedures that cover all key processes in the business;

- monitoring processes to ensure they are effective;
- keeping adequate records;
- checking output for defects, with appropriate and corrective action where necessary;
- regularly reviewing individual processes and the quality system itself for effectiveness; and
- facilitating continual improvement

ISO 9001:2008 only introduces clarifications to the existing requirements of ISO 9001:2000 and some changes intended to improve consistency with ISO14001:2004. There are no new requirements. ISO 9001:2008 is a standard which identifies effective quality management system . A quality management system being upgraded just needs to be checked to see if it is following the clarifications introduced in the amended version. ISO 9001:2008 certificate betrays that product and services of organization is managed according to management system accepted by international and determines that assurance about quality of product and services always goes on.

#### **2.4.1 ISO PRINCIPLES**

ISO 9001:2008 are still applying the principles that are states in ISO 9000. There are eight goals/principles that were initially enumerated in the 2000 release of ISO 9000 that set the temperament and focus of today's quality management techniques and application.

The eight goals/principle of ISO 9000 are:

1. Customer focused organization
2. Leadership

3. Involvement of people
4. Process approach
5. System approach to management
6. Continual improvement
7. Factual approach to decision making
8. Mutually benefit supplier relationship

However, there is an extra principles has been added which is defect prevention.

### **1. Customer focused organization**

Customers are important to an organization. Therefore, the organizations should be alert and update with any of customers requirement and strive to exceed customer expectations. As for that, the organization should:

- Researching and understanding customer needs and expectations.
- Ensuring that the objectives of the organization are linked to customer needs and expectations.
- Communicating customer needs and expectations throughout the organization.
- Measuring customer satisfaction and acting on the results.
- Systematically managing customer relationships.
- Ensuring a balanced approach between satisfying customers and other interested parties (such as owners, employees, suppliers, financiers, local communities and society as a whole).

### **2. Leadership**

Any successful organizations must have a leader with a strong leadership element to run the organization smoothly as they establish unity of purpose and direction of the organization. They should create and maintain the internal environment in which people can become

fully involved in achieving the organization's objectives. Therefore, a leaders needs to apply principle of leadership that leads to:

- Considering the needs of all interested parties including customers, owners, employees, suppliers, financiers, local communities and society as a whole.
- Establishing a clear vision of the organization's future.
- Setting challenging goals and targets.
- Creating and sustaining shared values, fairness and ethical role models at all levels of the organization.
- Establishing trust and eliminating fear.
- Providing people with the required resources, training and freedom to act with responsibility and accountability.
- Inspiring, encouraging and recognizing people's contributions

### **3. Involvement of people**

People at all levels are the essence of an organization and their full involvement enables their abilities to be used for the organization's benefit. The organizations need to motivated, committed and involved people within the organizations. Innovation and creativity also contribute in furthering the organizations objective. Principles that involved includes:

- People understanding the importance of their contribution and role in the organization.
- People identifying constraints to their performance.
- People accepting ownership of problems and their responsibility for solving them.
- People evaluating their performance against their personal goals and objectives.

- People actively seeking opportunities to enhance their competence, knowledge and experience.
- People freely sharing knowledge and experience.
- People openly discussing problems and issues.

#### **4. Process approach**

A desired result is achieved more efficiently when activities and related resources are managed as a process. It helps to lower cost and shorter cycles times through effective use of resource. Besides that, it also helps improved, consistent and make predictable results as the opportunities for improvement are prioritized and focused. This process involves applying principles such as:

- Systematically defining the activities necessary to obtain a desired result.
- Establishing clear responsibility and accountability for managing key activities.
- Analyzing and measuring the capability of key activities.
- Identifying the interfaces of key activities within and between the functions of the organization.
- Focusing on the factors such as resources, methods, and materials that will improve key activities of the organization.
- Evaluating risks, consequences and impacts of activities on customers, suppliers and other interested parties.

#### **5. System approach to management**

Involves identifying, understanding and managing interrelated processes system. It contributes to the organization's effectiveness and efficiency in achieving its objectives. As the result, the best desired results will be achieved due to the integration and alignment. The ability



to focus on the key processes provide confidence to interest parties as th consistency, effectiveness and efficiency of the organizations. The principles applied are:

- Structuring a system to achieve the organization's objectives in the most effective and efficient way.
- Understanding the interdependencies between the processes of the system.
- Structured approaches that harmonize and integrate processes.
- Providing a better understanding of the roles and responsibilities necessary for achieving common objectives and thereby reducing cross-functional barriers.
- Understanding organizational capabilities and establishing resource constraints prior to action.
- Targeting and defining how specific activities within a system should operate.
- Continually improving the system through measurement and evaluation.

## **6. Continual improvement**

Continuous improvement should be a permanent process of an organization. The ISO improves the organizational capabilities thus creating performance advantage. It can be achieve through alignment of improvement activities at all levels to an organization's strategic intent. Moreover, organizations should improve organizational capabilities and flexible in react quickly to opportunities. Besides, some more practical approach is suggested in the ISO standard procedures to:

- Employing a consistent organization-wide approach to continual improvement of the organization's performance.

- Providing people with training in the methods and tools of continual improvement.
- Making continual improvement of products, processes and systems an objective for every individual in the organization.
- Establishing goals to guide, and measures to track, continual improvement.
- Recognizing and acknowledging improvements.

## **7. Factual approach to decision making**

Making a correct decision is important as it contribute in the effectiveness of the organizations. Any decisions made are based on the analysis of the data and information through reference to factual records. It helps increased ability to review, challenge and change opinions and decisions. The suggested principles in ISO are:

- Ensuring that data and information are sufficiently accurate and reliable.
- Making data accessible to those who need it.
- Analyzing data and information using valid methods.
- Making decisions and taking action based on factual analysis, balanced with experience and intuition.

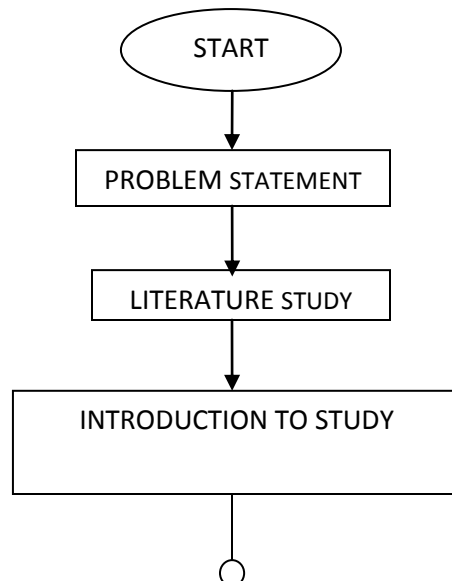
## CHAPTER 3

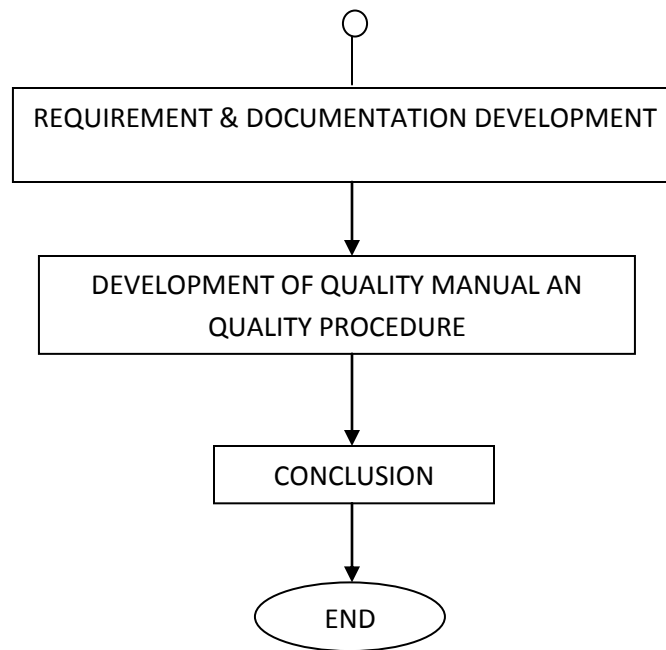
### METHODOLOGY

#### 3.1 INTRODUCTION

Chapter 3 is based on methodology that related to this project. Methodology is one of the most important elements to be considered to make sure the fluent of the project and get expected result. In other words the methodology can be described as framework where it contains the elements of the work based on the objectives and a scope of the project. A good framework can get the overall view of the project and get the data easily. This chapter included literature study, requirement and document development, implementation of standard, discussion and conclusion.

#### 3.2 FLOWCHART





**Figure 3.1:** Process Flowchart

### **3.2.1 EXPLANATION ON THE FLOWCHART**

The algorithm of the flowchart is like in Figure 3.1. It consist of six steps which are begin with problem statement, literature study, introduction study, requirement and documentation development, and development of quality manual and quality procedure, conclusion.

#### **1. Problem statement**

In this chapter, it discuss about the explanation of the problem statement. To understand the problem, it required research about the quality management at center of automotive excellence and list down on what requirement that needed to be applied at the center of automotive excellence. As for the result, the best solution is to implement the MS ISO 9001:2008 at the center of the automotive excellence.

## **2. Literature Study**

In this chapter, discussed the literature review of the MS ISO 9001:2008. It consist of the definition of the quality, quality management system (QMS), quality GURU's, quality management models, ISO 9001:2008 and the comparison between the quality models. To get a complete explanation of theses topic, a lot of research are needed.

### **3Introduction of Literature Study**

In this chapter, further information of MS ISO 9001:2008 are discuss. It also including the requirement stated in the MS ISO 9001:2008 and the steps needed to implement MS ISO 9001:2008 at the Automotive Excellence Center based on the clauses that stated in the MS ISO 9001:2008.

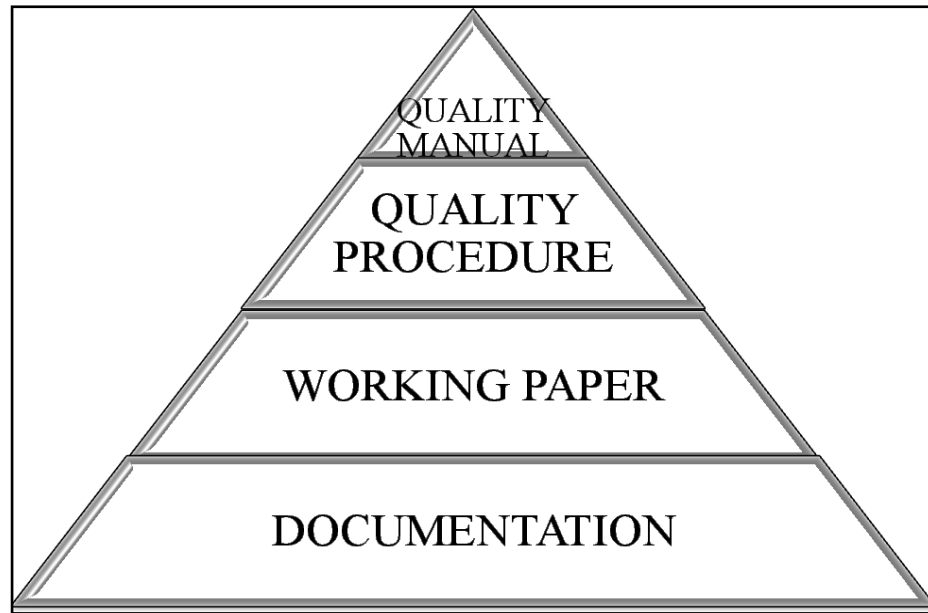
### **Requirement and Documentation Development**

In this chapter, the requirement of the clauses will be compare with the quality management at the Automotive Excellence Center. After the comparison, the suitable requirement that are needed will be document and proceed to the next step

### **Development of Quality Manual and Quality Procedure**

In this chapter will be the last step of the process. It will discuss about the development of quality manual and quality procedure. These quality manual and quality procedure are made due to the requirement of MS ISO 9001:2008 and through clauses. The clauses are clause 4, clause 5, and clause 6. Through these developments of quality manual and quality procedure, it could be a guide to take another steps of the purpose of this study which is the implementation of MS ISO 9001:2008.

### 3.3 PROCESS OF DEVELOPMENT MS ISO 9001:2008 MANAGEMENT SYSTEM



**Figure 3.2 :** Development Process

## **CHAPTER 4**

### **RESULT AND DISCUSSION**

#### **4.1 THE DEVELOPMENT OF QUALITY MANUAL AND QUALITY PROCEDURE**


In this chapter, the objective of this study has achieved which is the development of quality manual and quality procedure. Quality manual is the guide on the implementation of MS ISO 9001:2008 that follows the requirement of the MS ISO 9001:2008 standard. In this study the quality manual is develop according to clauses which is clause 4, clause 5 and clause 6. With this quality manual, it could help Automotive Excellence Center to take another step on implementation of MS ISO 9001:2008.

The quality procedure is the procedure that support the requirement needed in quality manual. In this quality procedure it explain all the procedure that need to execute in

order to achieve the continuous improvement of quality management system and maintaining the productivity of Automotive Excellence Center.



## 4.2 QUALITY MANUAL

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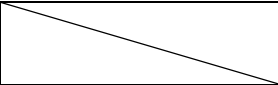
**UNIVERSITI MALAYSIA PAHANG**


**(UMP)**

**AUTOMOTIVE EXCELLENCE CENTER**

**QUALITY MANUAL**


**AEC-QM**

	<b>PREPARED BY</b>	<b>APPROVED BY</b>
<b>NAME</b>		
<b>POSITION</b>		
<b>SIGNATURE</b>		
<b>DATE</b>		


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**Table 4.1:** ISO 9001:2008 Requirements for Automotive Excellence Center, UMP


<b>Document No.</b>	<b>Title</b>	<b>Page No.</b>
QM I	Title Page	01
QM II	Table of Contents	02
QM 1.0	Information About the Organization	
	1.1 Introduction	05
	1.2 Objectives of the Quality Manual	06
	1.3 Content of Quality Manual	06
	1.4 Definition and Abbreviation	07
QM 2.0	Organization Information	
	2.1 Organization Background	08
	2.2 AEC Vision	08
	2.3 AEC Mission	08
	2.4 AEC Structure Organization	09

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QM 3.0	Management System	
3.1	Scope of Implementation of Quality Management System	10
3.2	Quality Policy	10
3.3	Quality Objective	10
3.4	Quality Management System	11
QM 4.0	Quality Management System	
4.1	General requirement	12
4.2	Documentation Requirement	13
QM 5.0	Management Responsibility	
5.1	Management Commitment	19
5.2	Customer	19
5.3	Quality Policy	20
5.4	Planning	20
5.5	Responsibility, Authority and Communication	25
5.6	Management Review	27

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QM 06	Resource Management	
6.1	Provision of Resource	29
6.2	Human Resource	29
6.3	Infrastructure	30
6.4	Work environment	31

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## **PART 1**

### **1.0 INTRODUCTION**

#### **1.1 Introduction To The Quality Manual**

This quality manual is the top tier of documentation system at Automotive Excellence Center. It gives an overview of the quality system at the Automotive Excellence Center. The quality manual is established to fulfill the goals and objective of Automotive Excellence Center based on the requirement and clauses of MS ISO 9001:2008. The purpose of this manual is to defined and describes the quality system, to define authorities and responsibilities of the management personnel involved in the operation of the system, and provide general procedures for all activities comprising the quality system.

Automotive Excellence Center is an organization that builds to conduct interdisciplinary research and development in automotive areas. It also supporting various companies in order to achieve competency in industry and focusing in

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commercial oriented technologies which contribute producing high quality automotive product and meets with international standards.

## 1.2 Objective

The objective of this Quality Manual is:


- i. To explain the basic information of Automotive Excellence Center Organization Management
- ii. To explain the Quality Management System in the service provided by Automotive Excellence Center consistent with the Quality Management System requirement
- iii. To explain the basic principal and basis of the activities of Automotive Excellence Center in development of product, research, testing and certification, dissemination of information and reference centre and technical advisor, and training and research collaboration

## 1.3 Content of Quality Manual:

This Quality Manual content of (4) part which is consist of :

Part 1: Introduction

Part 2: Organisation Information

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Part 3: Quality Management System of the Automotive Excellence Center

Department

Part 4: Requirement of Quality Management System

#### 1.4 **Definition and Abbreviation**

##### **Director**

Refer to the Director of Automotive Excellence Center which is the Dean of Faculty of Mechanical Engineering.

##### **DD**


Refer to the Deputy Director of Automotive Excellence Center.

##### **MR**

Management Representative – appointive by the director of Automotive Excellence Center.

##### **QM**

Quality Manager - Refer to the Director of the Automotive Excellence Center who in charge in managing the implementation of Quality Management System.

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## **PART 2**

### **2.0 ORGANISATION INFORMATION**

#### **2.1 Organization Background**

Automotive Excellence Center is an organization that builds to conduct interdisciplinary research and development in automotive areas. It also supporting various companies in order to achieve competency in industry and focusing in commercial oriented technologies which contribute producing high quality automotive product and meets with international standards.


#### **2.2 Vision**

To become world-class Automotive Excellence Center

#### **2.3 Mission**

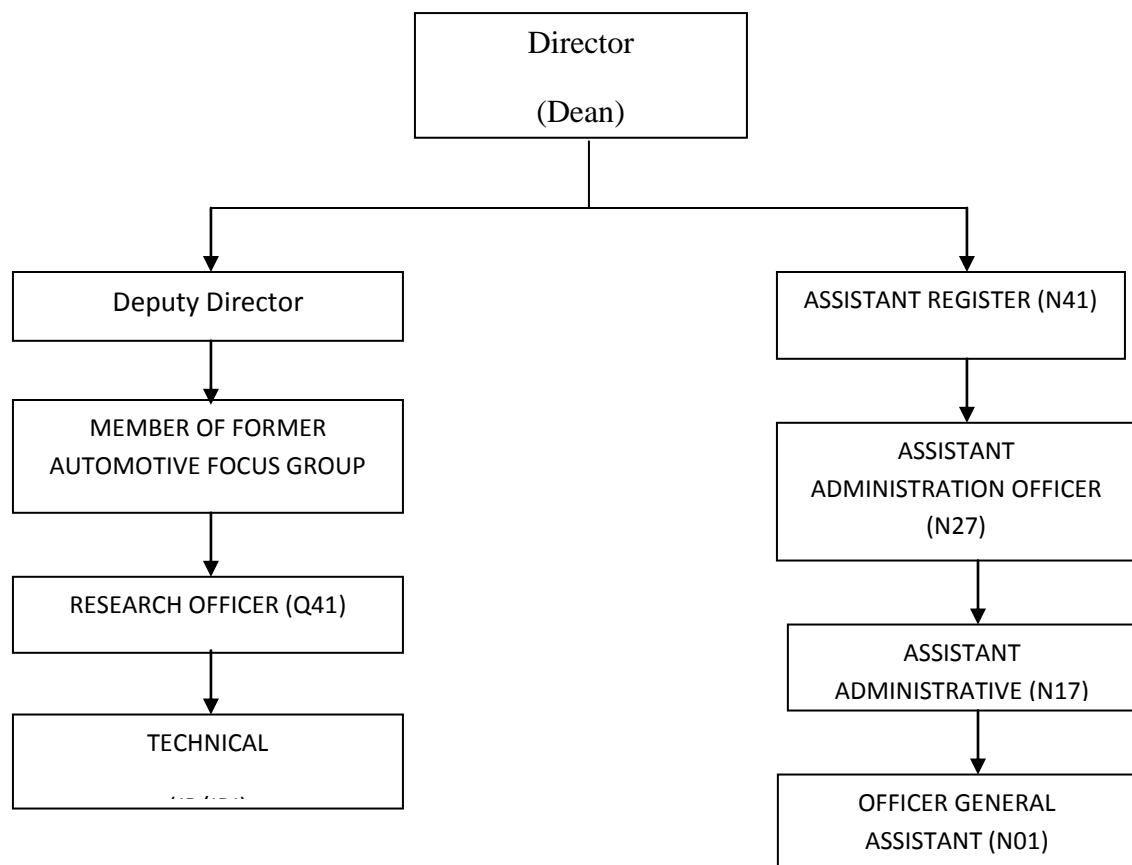
To provide world class automotive research facilities through continuous research process and applied latest technology in automotive research and development sector and collaborate with domestic and foreign research institute for automotive development and sharing information.




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## 2.4 Structure of Organization

Automotive Excellence Center is lead by the Dean of Faculty of Mechanical Engineering who is the Director of Automotive Excellence Center. The organization chart of Automotive Excellence Center as below :



**Figure 4.1:** Organizational Structure of the Automotive Excellence Center, UMP  
(Automotive Excellence Center, UMP 2009)

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## **PART 3**

### **3.0 Management system at Automotive Excellence Center at FKM, UMP**

#### **3.1 Scope of Implementation of Quality Management System**


Automotive Excellence Center implements Quality Management System to fulfill the vision and mission of the establishment of Automotive Excellence Center at UMP

#### **3.2 Quality Policy**

Automotive Excellence Center is committed in developing the potential towards the excellence research, competency and integrity that meets the MS ISO 9001:2008 Quality Management System requirements through continuous total improvement. Automotive Excellence Center will ensure that all the customer requirement fulfil through achievement of the quality objectives. Theses policy will be distribute and understandable to all staff and will be review for continuous effectiveness

#### **3.3 Quality Objective**


Automotive Excellence Center is committed to become an excellence research automotive centre and to create networking and collaborations with others institute such as high-education institute, research centre and industries either in domestic or overseas. In addition, Automotive Excellence Center also committed in generate high-skills, competence and integrations professional in Malaysia's automotive sector.

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### **3.4 Quality Management System**

Quality Management System (QMS) is a set of policies, processes and procedure require for planning and execution (production/development/service) in the core business of an organization.

The International Organization for Standardization's ISO 9001:2008 series describes standard for QMS addressing the principles and processes surrounding the design, development, and delivery a general product or service. Organizations can participate in a continuing certification process to ISO 9001:2008 to demonstrate their compliance with the standard, which includes a requirement for continual improvement of the QMS.

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## **PART 4**

### **4.0 QUALITY MANAGEMENT SYSTEM REQUIREMENT**


#### **SECTION 4 – QUALITY MANAGEMENT SYSTEM**

##### **4.1 General Requirement**

Automotive Excellence Center establishes, document, implement, and maintain a quality management system and continually improve its effectiveness in accordance with requirements of MS ISO 9001:2008.

Automotive Excellence Center will:

- a. Create the processes in Automotive Excellence Center quality management system
- b. Define the sequence and interaction of these processes
- c. Determine the criteria and methods to ensure the effectiveness of the operation and control of these processes
- d. Prepare the source and information that necessary to support the operation and monitoring of these processes

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- a. Monitor and measure these processes by the internal audit and the responsible supervisor
- b. Implement action necessary to achieved planned results and continual improvement


## **4.2 Documentation Requirements**

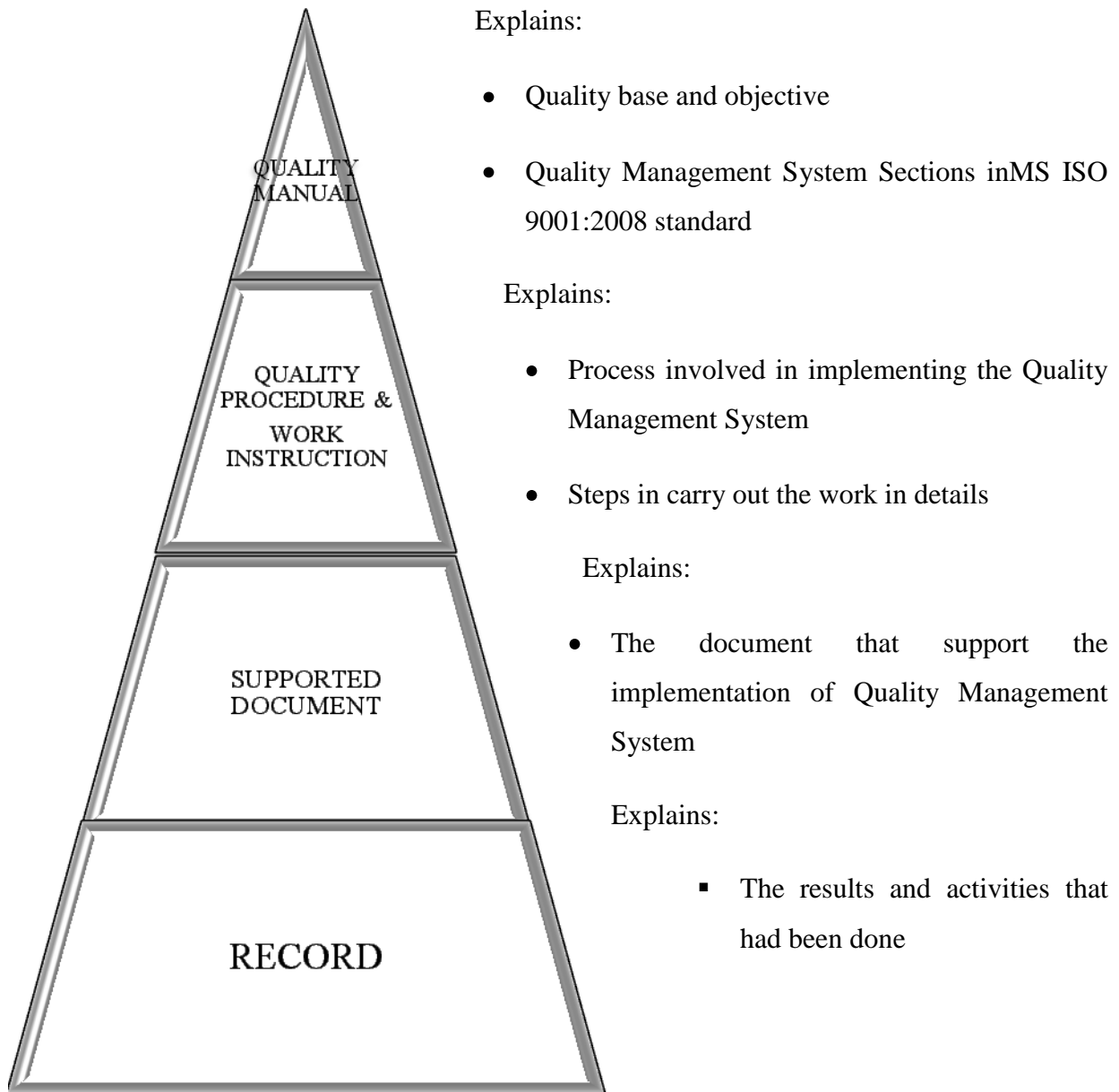
### **4.2.1 General**

The establishment of the quality management system is based on 4 documentation hierarchy that are:


1. Quality Manual
2. Quality Procedure
3. Supported Documentation
4. Records

The structure of document and the classification is as figure 4.1 below:

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**Figure 4.2 : Documentation Hierarchy**

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#### **4.2.2 Quality Manual**


Automotive Excellence Center establish a quality manual that contents as followed :

1. Fundamental and Quality Objectives
2. Quality Management System Scope
3. Justification of the requirement of MS ISO 9001:2008 that did not include in the Quality Management System Scope
4. The reference of the quality procedure
5. Description of the interaction between the processes of the quality management system

#### **4.2.3 Control of Documents**

Quality document that controlled by the Quality Management Systems are:

1. Quality Manual
2. Quality Procedure
3. Supported Document
4. Records


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The representative management officer is responsible in the quality document.  
Method use in control of document is:

#### **New Document**


- i. Quality Manual approved by the Director of the Automotive Excellence Center Department whereas the Quality Procedure and Work Instruction approved by the Technical of Center of Automotive Excellence
- ii. Every publication of the Quality Manual will be identified and the series number, amendment number and execution date will be stated. Identification of the publication of Quality Procedure and Work Instruction will be stated and the series number and execution will be record
- iii. The control of document and series number will be identified through the Quality Document Distribution List.
- iv. Copy of the Quality Document will be distribute to the document holders based on the Quality Distribution List
- v. Any amendment made on the Quality Procedure and Work Instruction will be replaced the current documents and the series number as well as the execution date will be added
- vi. The amendment documents will be distribute to all document holders
- vii. If the original copy is store, it will be mark as “DELETE” and if not it will be disposed



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### **Amendment of Quality Document**

- i. All staff Automotive Excellence Center have the right to give any amendment suggestion on though Quality Manual. All of the amendment suggestion must be inform to the representative officer
- ii. An amendment made on the Quality Manual must be approved by the Director of Automotive Excellence Center Department whereas amendment made on the Quality Procedure must be approved by the Technical of Automotive Excellence Center
- iii. All of the amendment will be record in Quality Document Amendment Record
- iv. The amendment documents will be distributed to all document holders
- v. The amendment of the Quality Manual is made by replacing the related page with the amendment and add the number of amendment and note down the new activation date
- vi. The amendment of the Quality Procedure and Work Instruction is made by replacing all of the document and add new publication number and note down new activation date
- vii. All the documents will be transfer into CD and distribute to all document holders
- viii. A copy of original document is transfer into CD and label as “DELETE” and keep by the Automotive Excellence Center Management Department


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### **Backup Document**

- i. An approved backup document will be use in the use in Center of Automotive Excellence management system
- ii. Internal and external Quality Document Main List that contents of all supported document that contents all supported document that use in current Quality Management System will be provided. Any amendment status of these documents will be updated
- iii. The update External Supported Document approved by the Management Representative before distribute to all of the External Supported Document Holders.

#### **4.2.4 Controls of Records**

1. It is a procedure to identified, storage, protection, retrieval and disposition of records provided
2. The time limit of the storage of every records controlled by Quality Procedure
3. “Backup” records is made for electronic records
4. Procedure of the record will be legible, readily identifiable and retrievable

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## **SECTION 5: MANAGEMENT RESPONSIBILITY**


### **5.1 Management Commitment**

Director of Automotive Excellence Center Department given full commitment in develop, execute, and improve the continually effectiveness of the Quality Management System with:

- a. Explaining the importance of communication skill in research, collaborating, learning and teaching to all of the staff of Automotive Excellence Center
- b. Establishing quality policy
- c. Ensure the quality objective are established
- d. Conducting management review
- e. Ensuring the availability of resources

### **5.2 Customer**

Director of Automotive Excellence Center ensure that customer demand identified and fulfill to increase the customer satisfaction. The customer charter is provided to ensure the level of service that given by the Automotive Excellence Center staff to customer

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The potential of Quality Management System at the Automotive Excellence Center determined by the evaluation of customer satisfaction

A Quality Manager is responsible to identified the responds and suggestion from customers


### **5.3 Quality Policy**

Director of the Automotive Excellence Center will ensure that quality policy :

- a. Is appropriate to the purpose of the organization
- b. Includes a commitment to comply with requirements and continually improve the effectiveness of the quality management system
- c. Provides a framework for establishing and reviewing quality objectives
- d. Is reviewed for continuing suitability

### **5.4 Planning**

#### **5.4.1 Quality Objectives (Refer 3.3)**

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#### 5.4.2 Quality Management System Planning

- a. Director of Automotive Excellence Center will ensure that the quality improvement is control and planned in order to meet the requirement in section 4.1 and quality objectives
- b. The Director of Automotive Excellence Center will ensure the acquisition of quality is well-planned and control by the establishment of Quality Management System Committee, Quality Secretariat and Quality Work Committee as show below:

- i. **QUALITY MANAGEMENT SYSTEM COMMITTEE**


President: Quality Manager

Deputy President: Deputy Quality Manager


Secretary: The Deputy Director Assistant that appointed by the Director of AEC

Member: All of the staff of AEC

- Function:
1. Accomplish the objective, vision and mission  
consistent with the purpose of the establishment of Automotive Excellence Center
  2. Deliver the value and purpose of the organization towards the quality and Quality Management System.

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3. Perform the efforts of improvement and innovation
4. To receive the feedback of the effectiveness and the competency of the Quality Management System.
5. Identify the process of the performance of service that can improve the quality and achievement of the organization.
6. Identify the supported process that can affect the effectiveness and competency of the service performance service.
7. Create the environment that can encourage the involvement and development of the committee of organization.
8. Provide structure and source needed to support the implementation of the organization strategic planning.
9. Create method to evaluate the performance of the organization to determine whether the objective is achieved or not.

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ii. **SECRETARIAT OF QUALITY ( Centre Stage)**


President: Deputy Director

Secretary: Selected by the Director of AEC

Members: Representative of the Management Department

Function: Synchronize following matter at the Centre Stage :

1. The preparation of the amendment document
2. Assembling of the supported document
3. The consistency of the training / exposure during the implementation period.
4. Synchronize the organization activities
5. Inspect the implementation in each department of AEC
6. Input of Management Review

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### iii. **QUALITY WORK COMMITTEE**

President: Management Representative

Deputy Director: Quality Manager

Secretary: Officer selected by the Management Representative


Members: (according to the function)

Function: Synchronize the following matters at the Management Department

Stage:

1. Synchronize the distribution of quality document and supported document.
2. Planning and execute the exposure and training to all staff of AEC.
3. Planning and synchronize the implementation of the activities
4. Inspect the Quality Management System
5. Identify the improvement need to be implement



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6. Collecting data and synchronize the data analysis of activities for Management Review.


7. Collect the input of Management Review

- c. If there any changes in the organization, the Management Representative is responsible to identify the effect of the changes and decide whether the documented Quality Management System need to amend and if it does proceed with the process.

## **5.5 Responsibility, authority and communication**

### **5.5.1 Responsibility and Authority**

- a. Director of the Automotive Excellence Center Department is responsible in determine the duty, responsibility and authorities of all staff that involves in managing any activities that affect the Quality Management System
- b. The responsibility and authorities will be distribute to all staff that involves in Quality Management System MS ISO 9001:2008

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### 5.5.2 Management representative


Management representative has role and responsibility as follows :

- Ensuring that processes needed for the quality management system are established, implemented and maintained
- Reporting to the Director of the Automotive Excellence Center Department on the performance of the quality management system and any need for improvement
- Ensuring the promotion of awareness of customer requirements throughout the organization

#### Quality Manager

Quality Manager is responsible as:

- As Deputy Chairman in Quality Management Committee
- Manage the distribution and disposing quality document
- Ensure that Quality Record is in control and maintain by the process manager
- Collect and analysis the reports made by the officers for the Management Review purpose
- Manage the customer feedback
- Ensure the implementation of quality audit process in run smoothly

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- g. Planning and execute the trainings needed for the effectiveness of the implementation of Quality Management System
- h. Builds the Working Team to study and recommend the improvement in identified department
- i. Manage the research and data analysis of the service and facilities


### **5.5.3 Internal communication**

Director of the Automotive Excellence Center Department establish the appropriate communication processes in every level through meeting, internal memo, electronic mail, notice, formal announcement, monthly assembly and any suitable platform or medium to ensure that all staff receive the information

## **5.6 Management Review**

### **5.6.1 General**

Director of the Automotive Excellence Center Department will review the organizations quality management system at planned intervals, to ensure its continuing suitability, adequacy and effectiveness. He also will include assessing opportunities for improvement and the needs for changes to the quality management system, including the quality policy and quality objectives in his review

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### 5.6.2 Review Input


The management review meeting agenda will include :

- a. Quality Policy and objectives achievement
- b. Results of audit
- c. Customer feedback
- d. Process performance and product conformity
- e. Status of preventive and corrective actions
- f. Follow-up actions from previous management reviews
- g. Changes that could affect the quality management system
- h. Recommendations for improvement
- i. Training requirement

### 5.6.3 Review Output

The output from management review will include decisions and actions related to :

- a. Improvement of effectiveness of the Quality Management System and its processes
- b. Improvement of product related to customer requirements
- c. Resource needs

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## SECTION 6: RESOURCE MANAGEMENT


### 6.1 Provision of Resources

Automotive Excellence Center is planning and getting complete resources to implement processes in Quality Management System through yearly budget. These resources includes complete personnel and trained, budget management, complete facilities, material and needs to process the equipments in the office and lab and also suitable infrastructure

### 6.2 Human Resource

#### 6.2.1 General

Automotive Excellence Center provided competence staff through education, training, skill and experience to ensure that the learning and teaching process in high quality performance

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### **6.2.2 Competence, Training and Awareness**


Automotive Excellence Center Department will :

- a. Identified the level of competency for each staff
- b. Planning and provide necessary training, course or take other actions to achieve the identified competence level
- c. Evaluate the effectiveness of the actions taken on the training
- d. Ensure all of the staff aware of the importance of their duties and how they distribute it to achievement of the quality objectives
- e. Maintain appropriate records of education, training, skills and experience

### **6.3 Infrastructure**

Automotive Excellence Center provided and maintain the infrastructure needed to achieve the needs of learning and teaching process at the Automotive Excellence Center. The infrastructure includes:


- a. Buildings, workspace and associated utilities
- b. Process equipment that related to the learning and teaching process
- c. Supported services such as transport, communication or information systems

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#### **6.4 Work Environment**

Automotive Excellence Center establish, manage, and ensure that staff satisfaction aspects, motivation, and recognition as well as good work environment that will support the output review and high quality performance

#### 4.3 QUALITY PROCEDURE

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**UNIVERSITI MALAYSIA PAHANG**

**(UMP)**

**AUTOMOTIVE EXCELLENCE CENTER**


**AEC-QP(U)-01**

**DOCUMENT CONTROL**

	<b>PREPARED BY</b>	<b>APPROVED BY</b>
<b>POSITION</b>	Quality Manager	Deputy Director
<b>SIGNATURE</b>		
<b>DATE</b>		






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### A. QUALITY DOCUMENT DISTRIBUTION LIST

[illegible]

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## **1.0 OBJECTIVE**

This procedure is highlighted actions taken to ensure the Quality Management System is organize and update as the teaching and learning activities and research is accomplished smoothly and effectively

## **2.0 SCOPE**

This procedure is use to create, revise, amend, distribute, index and organise the Quality Document

This procedure also use to distribute, index and organise supported document that is use in the Center of Automotive Excellence


## **3.0 REFERENCE DOCUMENT**

Quality Manual : 4.2.2, 4.2.3, 7.1, 7.3, 7.5.1, 8.2.3, 8.2.4

## **4.0 DEFINITION AND ABBREVIATION**

### **Quality Document**

Consist of Quality Manual (QM), Quality Procedure (QP), Work Instruction (WI) provided by the Automotive Excellence Center

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### **Support Document**

Consist of all the reference documents used in Quality Management System of UMP Automotive Excellence Center

### **Internal Support Document**

Consist of reference document provided by the UMP Automotive Excellence Center such as evaluation rules.

### **External Support Document**


Consist of reference document provided by outsider such as government circular letter, act, reportory orders and others.

### **Document Holder**

The selected offciers that listed in the distribution list to accept and store the document..

### **Quality Manager**

Officer selected by the director of Automotive Excellence Center to help managing the Quality Management System affair. In the Automotive Excellence Center organization chart the Deputy Director is the Quality Manager.

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### **Main Quality Document List**

A list consist of types of document that used and as reference in Quality Management Systemi.

### **Amendment Record**

Record that consist of information regarding any amendment made in any quality document used.

### **Manager Representative (MR)**

Deputy Director that selected by the Director of Automotive Excellence Center and responsible in ensuring the effectiveness of the Quality Management System at the central stage


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## 5.0 Work Procedure

Responsibility	Action
<p>Director</p> <p>DD</p> <p>Director</p>	<p><b>Quality Manual Preparation</b></p> <ol style="list-style-type: none"> <li>1. Identify principals in Quality Manual needed to implement Quality Management Sytem in Automotive Excellence Center in UMP.</li> <li>2. Direct the Deputy Director to manage the preparation of Quality Manual.</li> <li>3. Prepare the Quality Manual needed and present it to the director.</li> <li>4. Examine the prepared Quality Manual to ensure it is complete and fulfill the principal needed in the Quality Manual.</li> <li>5. Approved the Quality Manual as iti is encounter complete.</li> <li>6. Direct the Quality Manager to manage the distibution of the Quality Manual according to the Quality Manual Document List.</li> </ol>


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<p>DD</p>	<p><b>Quality Procedure Preparation</b></p> <ol style="list-style-type: none"> <li>1. Identify the QP and QA needed for the implementation of Quality Management System at Automotive Excellence Center.</li> <li>2. Direct the Program Head/staf to manage the preparation of Quality Procedure.</li> </ol>
<p>Head of Programme/ staff</p>	<ol style="list-style-type: none"> <li>3. Prepare the QP and QA needed and present to the Deputy Director.</li> </ol>
<p>DD</p> <p>Quality Manager</p>	<ol style="list-style-type: none"> <li>4. Examine the prepare QP and QA to ensure it is complete and right.</li> <li>5. Approved the QP and QA and direct the Quality Manager to manage the distribution of Quality Document Procedure according to Quality Document Distribution List.</li> </ol> <p><b>Quality Manual Amendment</b></p> <ol style="list-style-type: none"> <li>1. Accept suggestion to amend the Quality Manual through Quality Manual Amendment Recommendation Form or other</li> </ol>


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Deputy Director  Director  DD	<p>sources (appendix 3).</p> <ol style="list-style-type: none"> <li>2. Examine the amendment suggestion and make commentary and present to the Deputy Director</li> <li>3. Make commentary and suggestion and present to the Director.</li> <li>4. Approved the document amendment suggestion</li> <li>5. Amend the document as suggested.</li> </ol> <p>If the amendment:</p> <ol style="list-style-type: none"> <li>a) only at the page involved, record the new enforce date and added amendment number.</li> <li>b) change the number of pages, replace all of the documents and add publication number and new enforce date is record. The amendment number starts with zero again.</li> </ol> <ol style="list-style-type: none"> <li>6. Update the Quality Manual Amendment Record (appendix 5)</li> <li>7. Present the Quality Manual that had been amend to the Management</li> </ol>
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<p>Director</p> <p>Quality Manager</p>	<p>Representative</p> <p>8. Approved the Quality Manual Amnedment.</p> <p>9. Hand in the approved amendment</p> <p>Quality Manual to Deputy Director</p> <p>10. Execute the Quality Document Distribution/ Internal Support Document process.</p> <p>11. Store the original CD and label as “DELETE”. Other documents is disposed.</p>
<p>Quality Manager</p> <p>DD</p>	<p><b>Quality Procedure Amendment</b></p> <p>1. Accept the suggestion to amend quality document through Quality Prosedure Amendment Suggestion or other resources (appendix 4)</p> <p>2. Examine the amendment suggestion and make commentary and present to the Deputy Director.</p> <p>3. Verify the amendment suggestion and commentary</p>

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<p>Quality Manager</p> <p>DD</p> <p>Quality Manager</p>	<ol style="list-style-type: none"> <li>4. Approved the suggestion of the amendment document and direct the Quality Manager to manage the amendment on the quality document</li> <li>5. Amend the document as suggested, record the publication number and enforce date and also update the Quality Prosedure Amendment Record.</li> <li>6. Approved the amended document,</li> <li>7. Execute the Quality Document  Distribution/Internal Support  Document process</li> <li>8. Store the original CD and label as "DELETE". Other document is dispose.</li> </ol> <p><b>Quality Manual Main List</b></p> <ol style="list-style-type: none"> <li>1. Prepare a Quality Document Main List (appendix 8) that content list of quality document, internal support document (appendix 9) and external support document (appendix 10) in</li> </ol>
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<p style="text-align: center;">MR</p> <p style="text-align: center;">Quality Manager</p>	<p>which use in the implementation of Quality Management System and latest document status</p> <p>2. Update every document status</p> <p>changes in Quality Document Main</p> <p>List for AEC reference</p> <p><b>Quality Document Distribution / Internal Support Document</b></p> <ol style="list-style-type: none"> <li>1. Decide officer that will ne the Quality Document Holder / Internal Support Document Holder and report to the Quality Manager.</li> <li>2. Prepare the distribution list of the Quality Document / Internal Support Document CD (appendix 11).</li> <li>3. Prepare the copy of Quality Document in CD / copy of the Internal Support Document in sequence that content in the Quality Document CD / Internal Support Document Distribution List.</li> </ol>
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	<ol style="list-style-type: none"> <li>4. Record the control copy numbers on CD / copy of Internal Support Document</li> <li>5. Label the CD as ” CONTROL COPY” / copy of Internal Support Document before distribute it.</li> <li>6. Distribute the Quality Document CD / copy of the Internal Support Document to the document holder and get the Acceptance Confirmation approval.</li> </ol> <p><b>External Support Document Distribution</b></p> <ol style="list-style-type: none"> <li>1. Decide the officer that will be the document holder of the external support document and report to the Quality Manager.</li> <li>2. Distribute the external support document that approved by the Manager Representative (MR) as stated in External Support Document Main List to the identified officer.</li> <li>3.</li> </ol>
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	3. Inform the publication of the latest external support document if there any amendment through memo.
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## 6.0 Quality Record

<b>No.</b>	<b>Type of Record</b>	<b>Storage Period</b>	<b>Location</b>	<b>Appendix</b>
1	Quality Document CD Distribution List	5 Years		
2	Quality Document CD Acceptance Confirmation	5Years		
3	Quality Manual Amendment Recommendation	1 Years		
4	Quality Procedure Amendment Recommendation	1 Years		
5	Quality Manual Amendment Record	5 Years		
6	Quality Procedure Amendment Record	5 Years		
7	Document Amendment Acceptance Confirmation List	5 Years		
8	Quality Document Main List	5 Years		
9	Internal Support Document Main List	5 Years		


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10	External Support Document Main List			
11	External Support Document Distribution List			
12	Copy of "DELETE" Document			
13	Minutes Meeting of Management			
14	Minutes Meeting of Quality Work Committee			









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### APPENDIX 3

QUALITY MANUAL AMENDMENT SUGGESTION			
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<b>Amendment</b>		<b>Page</b>	
<b>Proposer Name</b>			
<b>Position</b>			
<b>Amendment Suggestion :</b>			
<b>Signature</b>		<b>Date</b>	
<b>Deputy Director Commentary</b>			
<b>Signature</b>		<b>Signature</b>	
<b>Date</b>		<b>Date</b>	


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<b>Director Commentary</b>			
<b>Signature</b>		<b>Date</b>	

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#### APPENDIX 4

QUALITY PROCEDURE AMENDMENT SUGGESTION			
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<b>Amendment</b>		<b>Page</b>	
<b>Proposer Name</b>			
<b>Position</b>			
<b>Amendment Suggestion :</b>			
<b>Signature</b>		<b>Date</b>	
<b>Program Head / Staf Commentary</b>			
<b>Signature</b>		<b>Signature</b>	
<b>Date</b>		<b>Date</b>	

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<b>Director Commentary</b>			
<b>Signature</b>		<b>Date</b>	



















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(UMP)**

**AUTOMOTIVE EXCELLENCE CENTER  
AEC-QP(U)-02**

**GENERAL QUALITY MANAGEMENT RECORD**

	<b>PREPARED BY</b>	<b>APPROVED BY</b>
<b>POSITION</b>	Qualiy Manager	Deputy Director
<b>SIGNATURE</b>		
<b>DATE</b>		

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## **1.0 OBJECTIVE**


This procedure explain the guide in implementation all of the quality record management including the letters received, quality record and staff record file that are effectively controlled and well-planned.

## **2.0 SCOPE**

This procedure is use in identifying, collecting, index, filing, storage, maintaining and disposing quality record process that connected to the Quality Management System.

## **3.0 REFERENCE**

- 3.1 Quality Manual 4.2.2, 4.2.4, 7.1, 7.5.1, 8.2.3, 8.2.4
- 3.2 Service Instruction Latest (Chapter 3,4 and 5 for related section)
- 3.3 Enforce Financial Circular Letter
- 3.4 Enforce Service Circular Letter S

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## **4.0 DEFINITION AND ABBREVIATION**

### **Responsible officer**

Officer that


- Record and file the quality records
- Store the quality records in suitable ways.
- Control the quality records

### **Quality Record**

Quality Record is produce from the activities that had been done. It is exist / maintain as a roof to follow the implementation of the Quality Management System.

### **Staff Letter**

Letter that related to the staff such as the life insurance, work experience, personal information.

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### **Official Letter**

This letter is address to the Director of AEC whether it is normal letter or stage letter, with or without “Attention To” particular officer. \

### **Unpredictable Condition**

The unplanned situations such as accident, sickness, disaster etc.

### **AOA**

Administration Officer Assistant

### **AA**

Administration Assistant (Clerk & Operation)


### **AA (Financial)**

Accountant Assistant

### **AA (S)**

Administration Assistant (Secretary)



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**LGS**


Low General Assistant

**SRF**

Staff Record File is files that use by the staff to keep all the quality records that related to the management implementation





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	<p>c. Date of the implementation form</p> <p>The form code is place at the right side of the form.</p> <p><b>Example of form coding as below :</b></p> <p>PS-07/L2/Pin.00(010306)</p> <p>2. Amending form and change the coding after it is approved by the Managemen Representative.</p> <p><b>STAFF            RECORD            FILE MANAGEMENT</b></p> <p><b>QUALITY                            RECORD MANAGEMENT IN COMPUTER DATA BASE</b></p> <p><b>MEETING    LETTER    QUALIT RECORD MANAGEMENT</b></p>
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## 6.0 QUALITY RECORD


No	Type of Record	Storage Period	Location	Appendix
1	Official Letter Acceptance Register Book	A year after finish use	Administration Officer	
2	Stages Official Letter Acceptance Register Book	7 Years	Administration Officer	
3	Internal Despatch Book	7 Years	Administration Officer	
4	External Despatch Book	7 Years	Administration Officer	
5	Letter of Delivery Registration Book	7 Years	Administration Officer	
6	Disposing Certification	Forever	Administration Officer	
7	Quality Record Main List	Until new amendment made	Quality Room / Head of Unit / Responsible Officer	1
8	SRF Register List	1 Year	Quality Room	2





Signature Deputy Director : <span style="float: right;">Date :</span>			



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**UNIVERSITI MALAYSIA PAHANG  
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**AUTOMOTIVE EXCELLENCE CENTER**

**AEC-QP(U)-03**

**MANAGEMENT REVIEW**

	<b>PREPARED BY</b>	<b>APPROVED BY</b>
<b>POSITION</b>	Head OF Program	Deputy Director
<b>SIGNATURE</b>		
<b>DATE</b>		

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## **1.0 OBJECTIVE**

This procedure explains the steps and responsibility of the management department in reviewing and evaluates the implementation of the Quality Management System to ensure that it is suitable, effective, and complete. This management review also will discuss and evaluate the chances in improvement and needs due to the changes of the Quality Management System.

## **2.0 SCOPE**

This procedure is used by the members of the Management Review in implement the management review of the Quality Management System. This Management Review will be performing at least twice a year.


## **3.0 REFERENCE**

3.1 Quality Manual 4.2.2, 5.61, 5.6.2, 5.63, 7.1, 7.5.1, 8.2.3, 8.2.4, 8.4, 8.5.1

## **4.0 DEFINITION AND ABBREVIATION**


### **MR**

Manager Representative – The Deputy Director selected by the Director of Automotive Excellence Center is responsible to ensure the effectiveness of the Quality Management System.

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## **Quality Manager**

A person selected by the Director to manage the Quality Management System affair at the Automotive Excellence Center. In the Automotive Excellence Center organization chart, the Deputy Director is the Quality Manager.


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## 5.0 WORK PROCEDURE


Responsibility	Action
<p>MR</p> <p>Quality Manager/ Deputy Director</p>	<ol style="list-style-type: none"> <li>1. Direct the Quality Manager to manage the Quality Management System two weeks before the Management Review.</li> <li>2. Direct selected officers to prepare reports as below : <ol style="list-style-type: none"> <li>a. Follow-up action from the past Management Review</li> <li>b. Report of Base Achievement and Quality Objective and</li> <li>c. Report of discovery audit</li> <li>d. Report of Customer Feedback Analysis</li> <li>e. Status of precaution, correction and developlment acts</li> <li>f. Information of any changes that could effect the Quality Management System (if any)</li> <li>g. Staff Planning and Training</li> </ol> </li> </ol>

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<p>Selected officer Quality Manager/ Deputy Director</p> <p>Director Board of Management Review Meeting</p>	<p>Managemet Report</p> <p>h. Report of Research, Publication, and Commercial</p> <p>i. Recommendation of improvement</p> <p>3. Prepare the related reports and hand it over to the Quality Manager before the meeting of Management Review</p> <p>4. Make a conclusion on the report</p> <p>5. Prepare report for the Management Review.</p> <p>6. Manage the arrangement and preparation of the Management Review.</p> <p>7. Be the chairman of the Management Review meeting</p> <p>8. Discuss the agenda in steps 2 (a to i)</p> <p>9. Decide the actions taken as stated below :</p> <p>a. Development and suitability of the Quality Objective</p> <p>b. Improvement due to the</p>


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<p>Secretary</p> <p>MR</p>	<p>effectiveness of the Quality Management System and related processes</p> <p>c. Improvement due to the teaching process and related service according to the customer demand.</p> <p>d. Resource Requirement.</p> <p>e. Main Competency needed.</p> <p>10. Manage the preparation of the minutes meeting and distribute to the members of Management Review in three weeks after the date of the Management Review meeting.</p> <p>11. Execute the actions decide through the Management Review meeting</p> <p>12. Manage the report preparation of the actions status.</p>
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## 6.0 QUALITY RECORD

<b>No</b>	<b>Type of Record</b>	<b>Storage Period</b>	<b>Location</b>	<b>Appendix</b>
1	Minute meeting of Management Review	2 Years	Administration Office	
2	Minute Meeting of The Board of Quality Work	2 Years	Quality Room/ Administration Office	
3	Management Review Report	2 Years	MR Office	
4	Follow up Action of Management Review	2Years	MR Office	
5	Management Review Meeting Invitation Letter	2 Years	Administration Office	

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(UMP)**


**AUTOMOTIVE EXCELLENCE CENTER**

**AEC-QP(U)-04**

**PLANNING AND STAFF TRAINING MANAGEMENT**

	<b>PREPARED BY</b>	<b>APPROVED BY</b>
<b>POSITION</b>	Head of Program	Deputy Director
<b>SIGNATURE</b>		
<b>DATE</b>		



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## **1.0 OBJECTIVE**

This procedure is highlight and explains the actions that should be taken in the implementation of the Staff Training effectively so that the planning of the training will be implemented effectively

## **2.0 SCOPE**

This procedure is use in the Automotive Excellence Center Management Department to identify the requirement of the training, planning and determine the procedure in giving the training including internal, external, formal and informal training to all of the staff that involved in the process and to ensure all the identified staff will get the development of skills program that they needed.

## **3.0 REFERENCE**


3.1 Quality Manual: 4.2.2, 5.6.2, 6.2.2, 7.1, 7.5.1, 8.2.3, 8.2.4.

3.2 AEC-QP (U)-01 Management Review

#### **4.0 DEFINITION AND ABBREVIATION**

##### **SDTO**

Staff Development and Training Officer is an officer that selected by the Director to

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manage the staff development training activity at the Automotive Excellence Center

## **AA**

Administration Assistant (Clerk & Operation) Gred N17.

## **Training Data Base**

Information of officer that related to the training and staff improvement.

## **Internal Training**


Training that organise by the Automotive Excellence Center in which the trainer is either among the officers or from outside.

## **External Training**

Training that organise by other agency either it is government or private


**AOA**

Administration Officer Assistant


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## 5.0 WORK PROCEDURE


<b>Responsibility</b>	<b>Action</b>
	<p><b>FULFILL THE NEEDS OF CENTER OF AUTOMOTIVE EXCELLENCE TRAINING</b></p> <ol style="list-style-type: none"> <li>1. Direct the Deputy Director to prepare the suggestion of the training and skills needed (appendix 1).</li> <li>2. Direct the Staff Development and Training Officer to distribute the Staff Information Form (appendix 2) and Competency Requirement Form (appendix 3) to all staff and new staff (if any)</li> <li>3. Distribute the Staff Information Form (appendix 2) and Competency Requirement Form (appendix 3) to all staff and hand in to the Deputy Director</li> </ol>

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	<p>4. Fill in the skills information in Competency Requirement Form (appendix 3) and hand it over to the SDTO</p> <p>5. Accept the staff's Competency Requirement Form (appendix 3) and resend to the Deputy Director</p> <p>6. Store and update the staff information data base</p> <p>7. Prepare the Training Planning Schedule based on the identified requirement from the staff information form, and Competency Needs Form, Internal Audit Report, Correction, Precaution And Development Act and also the result of</p>
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	<p>the Management Review.</p> <p>8. Listing all the needed types of training (appendix 1) and then listing the name of staff that need to attend the training and also as below :</p> <p>a. Training Term</p> <p>b. Training Estimate Cost.</p> <p>9. Suggesting the needs of the staff training that content Training Planning Schedule to the Deputy Director / Director for their approval</p> <p>10. Direct to the SDTO to distribute / announce the Training Planning Schedule that approved by the Director / Deputy Director to all the staff</p>
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	<p>11. Prepare the list of the participant that will take the training and handover to the Director / Deputy Director for approval.</p> <p>12. Approved the list of the participant if no amendment made</p> <p>13. Attend all of the training provided which is internal / external / industri training</p> <p>14. Complete the Training Evaluation Form (appendix 4) and handover to the SDTO</p> <p>15. Analyse the Training Evaluation Report (appendix 5 ) and hand over to the Deputy Director along with the Training Evaluation Form (appendix</p> <p>16. Evaluate the effectiveness of the course / training towards the staff that had</p>
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	<p>participate the course / training due to the suitable period of time by fill in the course effectiveness questionnaire form in appendix 7</p> <p>17. Maintaining all the training / course / skills and evaluation records and also the effectiveness of the training / course towards to the staff by re-update the training data base..</p> <p>18. Report the overall status of the Planning and Staff Training Management to be presented in the Management Review (refer to AEC-QP(U)-PS-01)</p>
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## 6.0 QUALITY RECORD

No	Type of Record	Storage Period	Location	Appendix
1	Staff Training List	2 Years	SDTO Office	1
2	Staff Information Form	As long as the staff has served	SDTO Office	2
3	Competency Needs Form	2 Years	SDTO Office	3
4	Training Evaluation Form	2 Years	SDTO Office	4
5	Training Analyse Report	2 Years	SDTO Office	5
6	Internal Training(1) Form	2 Years	SDTO Office	6
7	Course Effectiveness Questionnaire / Staff Participated Training Form	2 Years	SDTO Office	7
8	Training and Skill Suggestion Paper	2 Years	SDTO Office	
9	Training Planning Schedule	2 Years	SDTO Office	
10	Training Data Base	Forever	SDTO Office	

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11	Information from the Skill Training Form	2 Years	SDTO Office	
12	Planning and Staff Training Management Report	2 Years	SDTO Office	
13	Minute Meeting of Management	2 Years	SDTO Office	
14	Minute Meeting of Quality Work Committee	2 Years	SDTO Office	

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## Appendix 1

### STAFF TRAINING LIST


#### A. Lecturers

Courses related to Learning and Teaching Process as below :

1	
2	

#### B. Administration Department Staff / Support Staff

3	
4	
5	

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**Appendix 2**

### **AEC STAFF INFORMATION FORM**

DEPARTMENT:		Date of the form fill in :	
NAME:		IC NO :	
Department File No :		Gender :	
Date of appointed :		Valid Date of the current Position :	
Position :		Position Gred :	
Highest Academic Degree & Specialization Field :			
Phone No (H) :			
Phone No (H/P) :			
E-mail :			

**COURSE / WORKSHOP / SEMINAR ATTENDED FROM YEAR**

**\_\_\_\_\_UNTIL\_\_\_\_\_**


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COURSE / WORKSHOP / SEMINAR WANTED TO ATTEND.

NO	NAME OF COURSE / WORKSHOP / SEMINAR	LOCATION	DATE	
			FROM	UNTIL

FOREIGN COURSE / WORKSHOP/ SEMINAR THAT HAD ATTENDED SINCE  
SERVICE WITH PRIVATE / GOVERNMENT

NO	NAME OF COURSE / WORKSHOP / SEMINAR	LOCATION	DATE	
			FROM	UNTIL

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**Appendix 3**

### COMPETENCY NEEDS FORM


#### PART A: WORK INFORMATION

1. Name	
2. Position	
3. Date of Tarikh lapor diri	
4.Side duty	

#### PART B: REQUIREMENT IN KNOWLEDGE & SKILLS TO COMPETENCE

##### WITH THE DUTY

BIL	KNOWLEDGE / SKILLS	AFTER	DATE
	(Fill in by the responsible leader)	(Fill in by SDTO)	
1.	_____	<input type="checkbox"/>	_____
2.	_____	<input type="checkbox"/>	_____
3.	_____	<input type="checkbox"/>	_____
(Use extra appendix if it is not enough )			

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**PART C: COMMENTARY SDTO / DEPUTY DIRECTOR**

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.....

( )

Date :



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**Appendix 4**

**TRAINING EVALUATION FORM**

Course :

Date :

Location :


<b>Observation Gred</b>	<b>Score</b>
Strongly Disagree	1
Disagree	2
Average	3
Agree	4
Strongly Agree	5

Instruction :

Please state your opinion toward training / course program that you had attended by tick


(/) at the column as below :

<b>No</b>	<b>Item</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	The objective of the course / training is well stated.					
2	The course has achieved the course objective.					
3	The content of the course / training is well organise					
4	The material of the course content the latest and update information.					
5	The speaker explain the course objective clearly.					

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6	The speaker has explain the concept and principal clearly.					
7	The speaker has presented the content of the course sistematically.					
8	Reflection session at the end of the progarm is well perform.					
9	Good interaction between the participant and the speaker					
10	The task / training / workshop given is suitable and enough					
11	The training / modul given is easy to understand and to follow.					
13	The place of the training / course is suitable for the activity					
14	I think I am lucky to be chose or chosen to follow this course					
15	The planning and performance of the program is well organise.					
16	The time gieven for each modl is suitable					
17	Overall the program is success and benefit to all the participants.					

(Other comment (if any )

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## Appendix 5

### TRAINING ANALYSIS REPORT


Course :

Date :

Location :

Committee name :

No	1	Strongly Disagree	2	Disagree	3	Average	4	Agree	5	Strongly Agree	1	2	3	4	5
1	The objective of the course / training is well stated.														
2	The course has achieved the course objective.														
3	The content of the course / training is well organise.														
4	The material of the course content the latest and update information.														
5	The speaker explain the course objective clearly														
6	The speaker has eplain the concept and principal clearly..														
7	The speaker has presented the content of the course sistematically														
8	Reflection session at the end of the progarm is well perform														
9	Good interaction between the participant and the speaker.														
10	The task / training / workshop given is suitable and enough.														
11	The training / modul given is easy to understand and to follow..														

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12	The place of the training / course is suitable for the activity					
13	I think I am lucky to be chose or chosen to follow this course					
14	The planning and performance of the program is well organise.					
15	The time gieven for each modl is suitable					
16	Overall the program is success and benefit to all the participants.					

LIST (If any)

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OVERALL CONCLUSION


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## Appendix 6


### QUESTIONNAIRE OF THE EFFECTIVENESS OF THE THE COURSE / TRAINING PARTICIPATED BY STAFF

<b>STAFF &amp; COURSE/TRANING INFORMATION(FILL IN BY STAFF)</b>
---

<b>NAME</b>		<b>UNIT</b>	
<b>NAME OF RESPONSIBLE OFFICER</b>			
<b>COURSE/TRAINING</b>			
<b>ORGANISER</b>		<b>DATE</b>	
<b>COURSE/TRAINING OBJECTIVE</b>			

#### THIS SECION FILL BY THE RESPONSIBLE LEADER

BEFORE COURSE		AFTER COURSE	
<b>PURPOSE TAKING THE COURSE</b>		<b>Objective achieved</b>	<b>Objective not achieved</b>

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BEFORE COURSE	AFTER COURSE		
	COMPETENCY ACHIEVEMENT (√)		
	1	2	3

1. Agree/Effective

2. Disagree/No Effective

3. Unsure

**Comment / Review**

The officer has achieve al the needed competency. Recomended staff from other department to joint this course..


.....

(Responsible leader signature)

Name:

Date :

Objective: A least 70% of knowledge / competency needed is effective for each course

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## Appendix 7

### COPY OF TRAINING RECOMMENDATION PAPER

#### YEARLY INTERNAL COURSE BUDGET APPLICATION FORM

DEPARTMENT/PROGRAMME	
NAME OF ORGANISER	

NAME OF COURSE	
COURSE CODE	
DATE	
LOCATION	
TARGET GROUP	
NUMBER OF STAFF	


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**\*\*Course Code :**

- 01 Management
- 02 Curriculum & Cocurriculum
- 03 Research
- 04 Resource Development
- 05 Others



#### 4.4 WORK INSTRUCTION

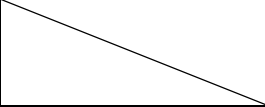
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(UMP)**

**AUTOMOTIVE EXCELLENCE CENTER**


**AEC-QP(U-02)-01**

**PARTICULAR QUALITY RECORD MANAGEMENT**


	<b>PREPARED BY</b>	<b>APPROVED BY</b>
<b>POSITION</b>	Quality Manager	Deputy Director
<b>SIGNATURE</b>		
<b>DATE</b>		

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<b>Responsibility</b>	<b>Action</b>
	<p><b>STAFF RECORD FILE</b></p> <p><b>MANAGEMENT (SRFM)</b></p> <ol style="list-style-type: none"> <li>1. Prepare the SRFM and hand it over to the staff on the first week of work day.</li> <li>2. Prepare the SRFM that content of: : <ol style="list-style-type: none"> <li>a) SRFM reference number</li> <li>b) Name and logo</li> <li>c) Name of the file holder</li> <li>d) Working session</li> <li>e) Content follow the 'Staff Implementation Check List'</li> </ol> </li> <li>3. Hand over the outline of the opening and registration of SRFM and the information of the SRFM data to all Coordinator or Staff.</li> <li>4. Prepare the list of name of the staff and give the reference number of the SRFM to the staff (appendix 1)</li> <li>5. Open the SRFM and put in the registration information of SRFM on</li> </ol>

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	<p>the front page of the SRFM..</p> <p>6. Prepare and insert the SRFM Content</p> <p>List that have index to simplify the</p> <p>reference to quality record in SRFM.</p> <p>7. Insert the related quality record into the</p> <p>SRFM</p> <p><b>Distribution of Task</b></p> <p><b>a. Expected Condition</b></p> <p>8. Direct the staff to hand over the task to</p> <p>update all the quality record.</p> <p>9. Update all of the record.</p> <p>10. Submit the updated Quality Record</p> <p>and note down the date of submission .</p> <p>11. Ensure all the quality record is</p> <p>complete and update.</p> <p><b>b. Unexpected Condition</b></p> <p>12. Inform the Deputy Director/Head Of</p> <p>Program about the submission of the task</p> <p>as result of the unexpected condition.</p> <p>13. Direct the staff to take over the task. .</p> <p>14. Ensure all the quality records is complete</p> <p>and update.</p>
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	<p>15. Record the date of take over task and sign the task</p> <p><b>SRFM Storage</b></p> <p>16. Put the SRFM on the staff office/staff's desk.</p> <p>17. Keep the SRFM after a month of working period at the staff office/AEC Record Room.</p> <p>18. Control osll of the old quality record until the end of the storage period.</p> <p><b>Disposing the SRFM Content</b></p> <p>19. Dispose the quality record after the end of the storage period.</p>
	<p><b>MANAGEMENT OF THE QUALITY RECORD IN COMPUTER DATA BASE</b></p> <p>1. Create at least one back up whether in print out or hard disk / CD / Disket / pendrive for all quality record that keep in the computer base.</p>

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	<p><b>Disposing of Quality Record in Computer Data Base</b></p> <ol style="list-style-type: none"> <li>1. Dispose the data that store in the hard disk / pendrive to delete the data.</li> <li>2. Dispose the data in the CD by discard the CD itself.</li> </ol> <p><b>MANAGEMENT OF THE ACCEPTING LETTER AND REGISTRATION LETTER OF QUALITY RECORD</b></p> <ol style="list-style-type: none"> <li>1. Open and stamp the date of acceptance at the front page.</li> <li>2. Isolate according to the administration and send to the adminstration assistant.</li> </ol>
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	<ol style="list-style-type: none"> <li>3. Record the information of the letter in the registration book of general letter acceptance and acceptance letter in stages or in computer with below information:- <ol style="list-style-type: none"> <li>a) Date of the letter acceptance</li> <li>b) The title of the letter (simplify)</li> <li>c) Reference of the letter</li> <li>d) Date of the letter</li> <li>e) Name of the department / company of the sender</li> </ol> </li> <li>4. Submit the letter to Director of AEC or the recipient</li> <li>5. Examine the letter and record the instruction to the officer.</li> <li>6. Send the letter back to the administration assistant.</li> <li>7. Record the information in the registration book of the general acceptance letter and acceptance letter in stages or in computer.</li> </ol>
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	<p>8. Put the copy of the letter in the regarding file.</p> <p>9. Distribute the letter to the related.</p> <p>10. Examine the letter and take further action.</p> <p><b>The Opening and Registration File</b></p> <p>11. Get the white skin file for the General file and green skin file for Stages file.</p> <p>12. Classify the file according to the guidance of the classification file and also record the title and reference number of the file on the front page of the file.</p> <p>13. Put the minute of meeting in the regarding file</p> <p><b>Letter Content</b></p> <p>14. Put the letter in the related file and take the following actions:</p>
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	<p>a) Acceptance Letter</p> <ul style="list-style-type: none"> <li>▪ Record the number of the letter pages in circle at the right side of the letter using the red pen.</li> <li>▪ Record the date, title, recipient and the reference number on the minute paper using the red pen.</li> </ul> <p>b) The out going letter</p> <ul style="list-style-type: none"> <li>▪ Record the number of the letter content at the right side of the letter using blue and black pen.</li> <li>▪ Record the date of the letter, recipient, and the title of the letter on the minute paper using blue or black pen.</li> </ul>
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	<p>15. Keep the file at the provided place.(refer to the Quality Record Main List)</p> <p><b>File Movement</b></p> <p><b>Hand Delivery</b></p> <p><b>General Letter</b></p> <p><b>Stage Letter</b></p> <p><b>Pos Service Delivery Letter</b></p> <p><b>Storage</b></p>
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	<b>File</b>  <b>Open The Continous File</b>  <b>Open Temporary File</b>  <b>Record Disposing</b>  <b>File</b>  <b>Financial Record</b>
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## **CHAPTER 5**

### **CONCLUSION AND DISCUSSION**

#### **5.1 CONCLUSION**

Through the early stage to the end of this project, the research activity had help to gain more knowledge on understanding and analyzing the requirement of MS ISO 9001:2008. The requirement of MS ISO 9001:2008 help in maintaining the Quality Management System in any organization.

The development of the Quality Manual and Quality Procedure is one of the steps towards implementation of MS ISO 9001:2008. These documentation acts as a guide to help the staff management of Automotive Excellence Center to fully understand the requirement of the MS ISO 9001:2008. The documentation should be really executed in order to achieve high maintenance awareness.

## **5.2 RECOMMENDATION**

Technically, Automotive Excellence Center has not yet managed to accredit the MS ISO 9001:2008 certification. Therefore, it is strongly suggested that Automotive Excellence Center to apply for the certification as it could help in management system at Automotive Excellence Center. Moreover, Automotive Excellence Center should consider on future research on comparison between the ISO 9001 certified organization and the non-ISO 9001 certified organization in term of financial, experiences and administration of the organization.

Besides that, Automotive Excellence Center should look into comparing the performance among the staff of Automotive Excellence Center based of the staff and the actual printed document especially in the aspect of financial performance. This will lead to a better explanation to the impact of implementing ISO 9001:2008 Quality Management System the productivity and Automotive Excellence Center management system.

Moreover, for the future research a visit to any organization that has implement MS ISO 9001:2008 is one of the way to enhance more knowledge and understand the important of MS ISO 9001:2008 to organization.

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## APPENDICES

## A1

## FINAL YEAR PROJECT 1

[illegible]

## FINAL YEAR PROJECT 2

[illegible]